

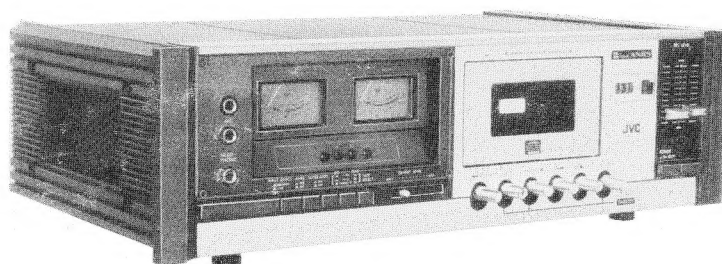
# JVC

## SERVICE MANUAL

MODEL

**KD-S200-2A/B/C/E/J/U**

STEREO CASSETTE DECK



No. 4157  
June 1977

# Contents

	Page		Page
Specifications .....	2	Wiring .....	14
Features .....	3	Standard Schematic Diagram .....	16
Controls and Connections .....	3	Block Diagram .....	18
Main Parts Location .....	4	Circuit Board Parts .....	19
Maintenance .....	5	Mechanical Component List .....	28
Main Parts Removing .....	6	Enclosure Assembly and Electrical Parts	
Enclosure Assembly .....	6	Except Circuit Board Parts .....	32
Electrical Parts .....	7	Accessories .....	36
Mechanical Parts .....	8	Packing .....	36
Adjustments .....	10		
Troubleshooting Guide .....	12		
Mechanical Adjustment .....	12		
Electrical Circuit .....	12		
Mechanical Section .....	13		
Mechanical Repairs .....	13		

## Specifications

Type	: Stereo cassette deck	Input jacks	: Mic jack x 2 Max. sensitivity; 0.2 mV Matching impedance; 600Ω—10kΩ
Track system	: 4-track, 2-channel		Input jack x 2 Min. input level; 80 mV Input impedance; 100 kΩ
Cassettes	: C-30, C-60, C-90	Output jacks	: Output jack x 2 Output level; 0—0.5 V Output impedance; 0—3 kΩ Matching load impedance; 50 kΩ or more Headphone jack x 1 Output level; 0.3 mW Matching impedance; 8Ω—1 kΩ
Frequency response		DIN connector (REC/PB):	Min. input level; 15 mV Input impedance; 10 kΩ Output level; 0—0.5 V Output impedance; 0—3 kΩ Matching impedance; 50 kΩ or more
Chrome *1	: 20—18000 Hz (Nominal) 30—16000 Hz (Typical)	Power requirement	: AC 120 V, 60 Hz (KD-S200-2C/J) AC 120 V, 220 V, 240 V, 50 Hz (KD-S200-2A/B/E) AC 100 V, 120 V, 200 V, 220 V, 50/60 Hz (KD-S200-2U)
Normal *2	: 20—17000 Hz (Nominal) 30—15000 Hz (Typical)	Power consumption	: 30 W
Surpasses DIN 45500		Dimensions	: Width; 19-5/8" (501 mm) Height; 6-1/4" (158 mm) Depth; 12-5/8" (321 mm)
Signal-to-Noise ratio	: 52 dB (JIS) The S/N is improved by 5 dB at 1 kHz and by 10 dB above 5 kHz with ANRS on. 60 dB with ANRS (DIN 45500, weighted)	Weight	: 17.9 lbs (8.1 kg)
Wow and Flutter	: 0.20% (DIN 45500)	*1 .....	TDK SA or Equivalent
Crosstalk	: 65 dB	*2 .....	Maxell UD or Equivalent
Harmonic distortion	: 1.3% (normal tape)		
Bias	: AC bias (95 kHz)		
Erasure	: AC erasure		
Heads	: 2 heads Sen-Alloy head for recording/play- back and ferrite head (2 gap) for erasure		
Motor	: Electronically governed DC motor		
Tape speed	: 4.8 cm/sec.		
Recording time	: 2 x 30 minutes with C-60 cassette		
Fast forward time	: 125 sec. with C-60 cassette		
Rewind time	: 125 sec. with C-60 cassette		
Semiconductors	: 7 ICs, 26 transistors, 2 SCRs and 43 diodes		

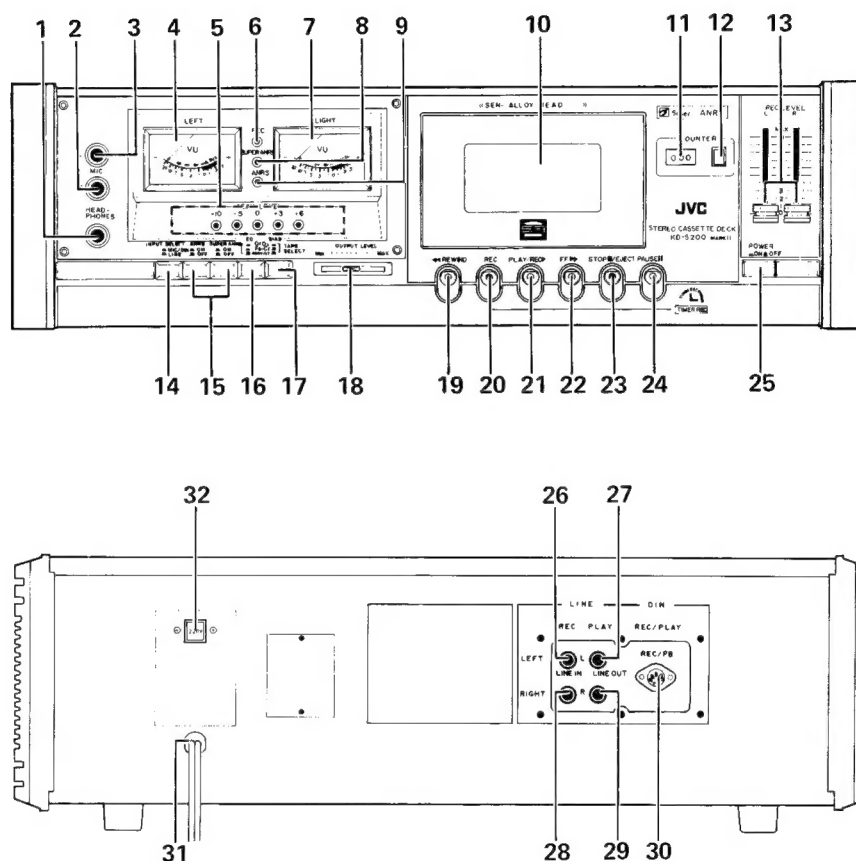
Design and specifications are subject to change without notice.

# Features

"Vertical-open-view" cassette deck  
 Multi-point peak level indicators  
 SEN-ALLOY head  
 IC built ANRS and Super ANRS employed  
 (Both U.S. patent pending)  
 ID (Independent Drive) mechanism

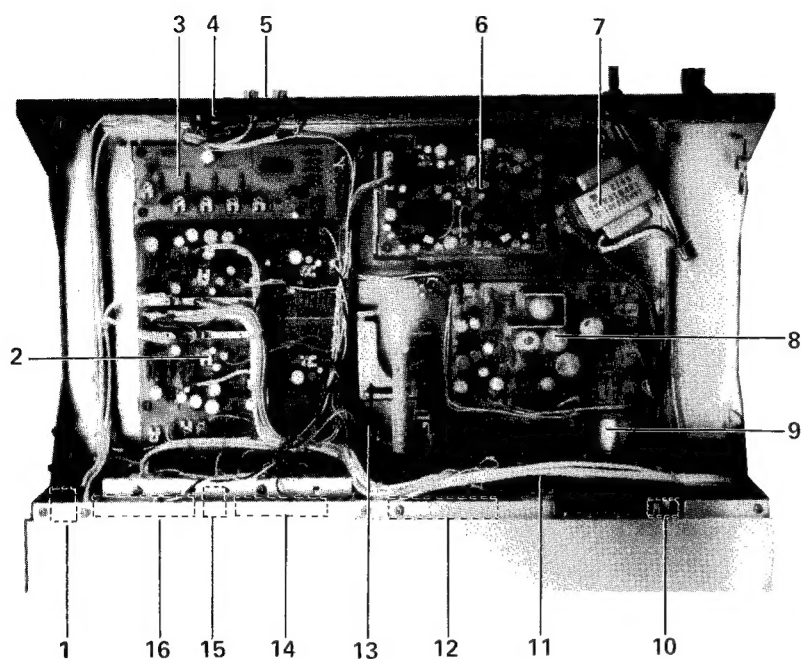
Timer recording  
 Full auto stop  
 Air-damped cassette door (Pat. pending)  
 Input select switch  
 Tape select switches  
 Output level control

# Controls and Connections



- |   |                                     |
|---|-------------------------------------|
| 1 Headphone jack (HEADPHONE)            | 17 TAPE SELECT BIAS switch          |
| 2 Right channel microphone jack (MIC-R) | 18 Output level control             |
| 3 Left channel microphone jack          | 19 Rewind button (◀◀ REWIND)        |
| 4 Left channel lever meter              | 20 Record button (REC)              |
| 5 PEAK level indicators                 | 21 Play button (PLAY/REC ▶▶)        |
| 6 REC indicator                         | 22 Fast forward button (FF ▶▶▶)     |
| 7 Right channel lever meter             | 23 Stop/Eject button (STOP ■/EJECT) |
| 8 Super ANRS indicator                  | 24 Pause button (PAUSE   )          |
| 9 ANRS indicator                        | 25 POWER switch                     |
| 10 Cassette door                        | 26 Left channel LINE IN terminal    |
| 11 Tape COUNTER                         | 27 Left channel LINE OUT terminal   |
| 12 Counter reset button                 | 28 Right channel LINE IN terminal   |
| 13 REC-LEVEL controls                   | 29 Right channel LINE OUT terminal  |
| 14 INPUT SELECT switch                  | 30 DIN socket (REC/PB)              |
| 15 ANRS and Super ANRS switches         | 31 Power cord                       |
| 16 TAPE SELECT EQ switch                | 32 Voltage selector                 |

## Main Parts Location



- 1 MIC jack circuit board
- 2 Main amp circuit board
- 3 Peak level circuit board
- 4 DIN jack
- 5 PIN jacks
- 6 ANRS circuit board
- 7 Power transformer
- 8 Power supply circuit board
- 9 Motor ass'y
- 10 CdS lamp
- 11 Flywheel ass'y
- 12 Head wire terminal circuit board
- 13 Air-damp pipe
- 14 Level meter (Right)
- 15 Indicator circuit board
- 16 Level meter (Left)

# Maintenance

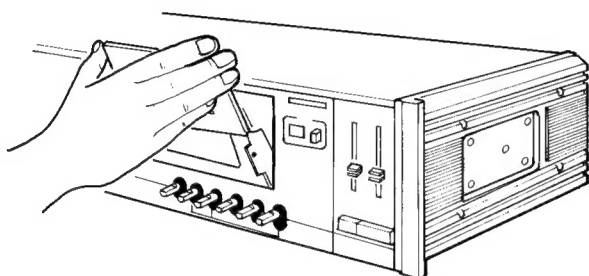
To get long, trouble-free service, maintenance is important. Do not forget cleaning and demagnetizing.

## Cleaning

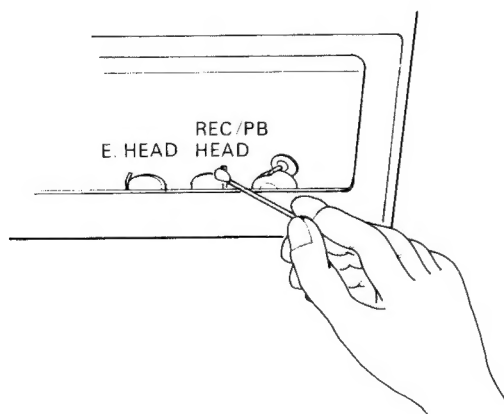
After long use, the heads and tape path — capstan, pinch roller, etc. — will become dirty with dust or magnetic particles. Dirty heads cause imperfect erasing or high frequency drop-off. A dirty capstan and pinch roller will cause unstable tape speed, leading to increased wow and flutter. Always keep them clean by the following procedure below.

### 1. Heads

- 1) Press the EJECT button with the POWER switch OFF to open the cassette door.
- 2) Remove the cassette door by sliding it upward.

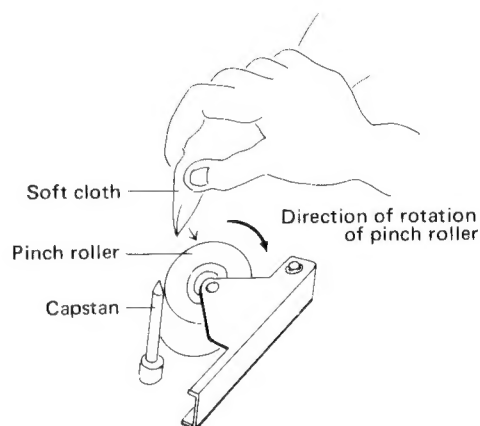


- 3) Press the PLAY button to move the heads out.
- 4) Use the head cleaning stick provided to wipe the surface where the tape comes into contact with the head.  
(It is effective to moisten the cotton with alcohol.)



### 2. Pinch roller and capstan

- 1) Press the EJECT button with the POWER switch ON to open the cassette door.
  - 2) Press the PLAY button, and the pinch roller will move out and rotate.
  - 3) Apply a soft cloth (soaked in alcohol, it will be more effective) to the rotating pinch roller and capstan.  
Be careful not to let the cloth get caught!
- \*Do not use any cleaner besides alcohol or a specifically prepared tape head cleaning solution.



### 3. Cabinet

When the cabinet becomes dirty, wipe it with a soft cloth soaked with a neutral cleaning solution of a polishing cloth.  
\*Do not use thinner or benzene.

## Demagnetizing

The heads are made from a material resistant to magnetization, but after long use they may become magnetized. A magnet brought into their vicinity can magnetize the heads, causing excess noise. If noise seems to have increased, demagnetize the heads with a head demagnetizer through the following procedure.

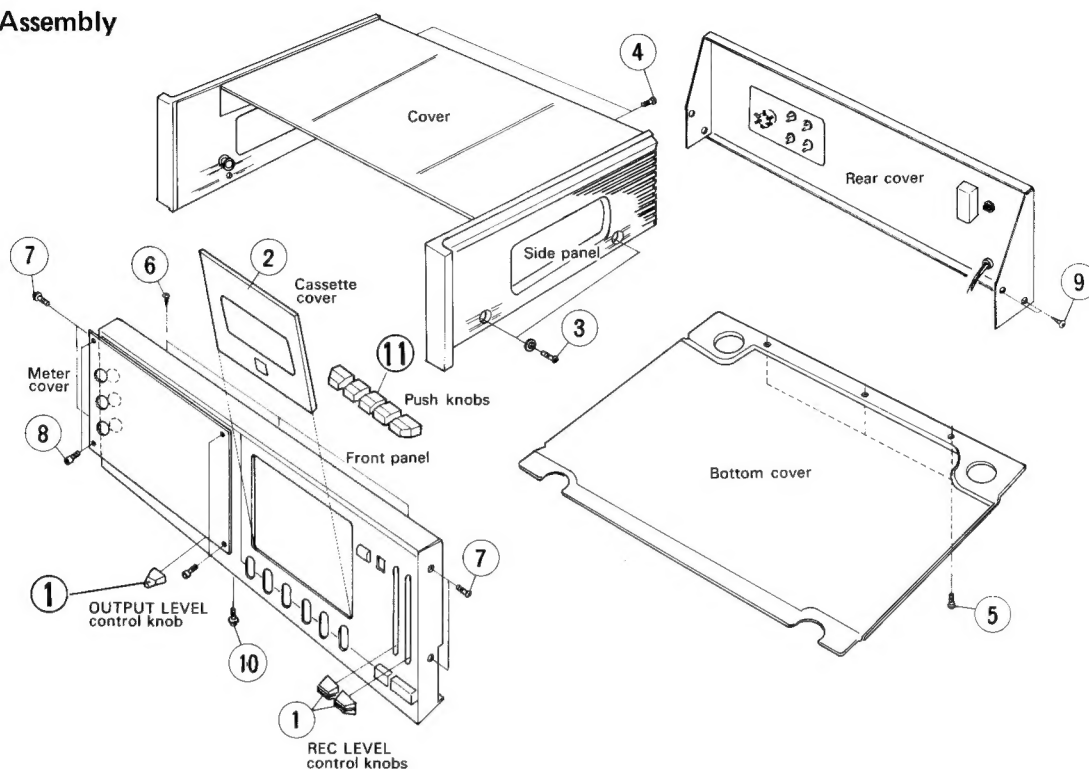
1. Push the POWER switch OFF.
2. Wrap the tip of the demagnetizer with vinyl tape or soft cloth so as not to damage the head surface. Switch on the demagnetizer and bring it close to the head.
3. Move the tip of the demagnetizer slowly first to the left and right, then up and down in front of the head. Gradually move it away from the head and switch it off at a distance of more than 30 cm (12").
4. The erase head need not be demagnetized. The capstan shaft and tape guide should be demagnetized in the same way as the record/playback head.

\*Do not bring a magnetized metallic object (a screwdriver, for example) near the head as this will increase noise.

# Main Parts Removing

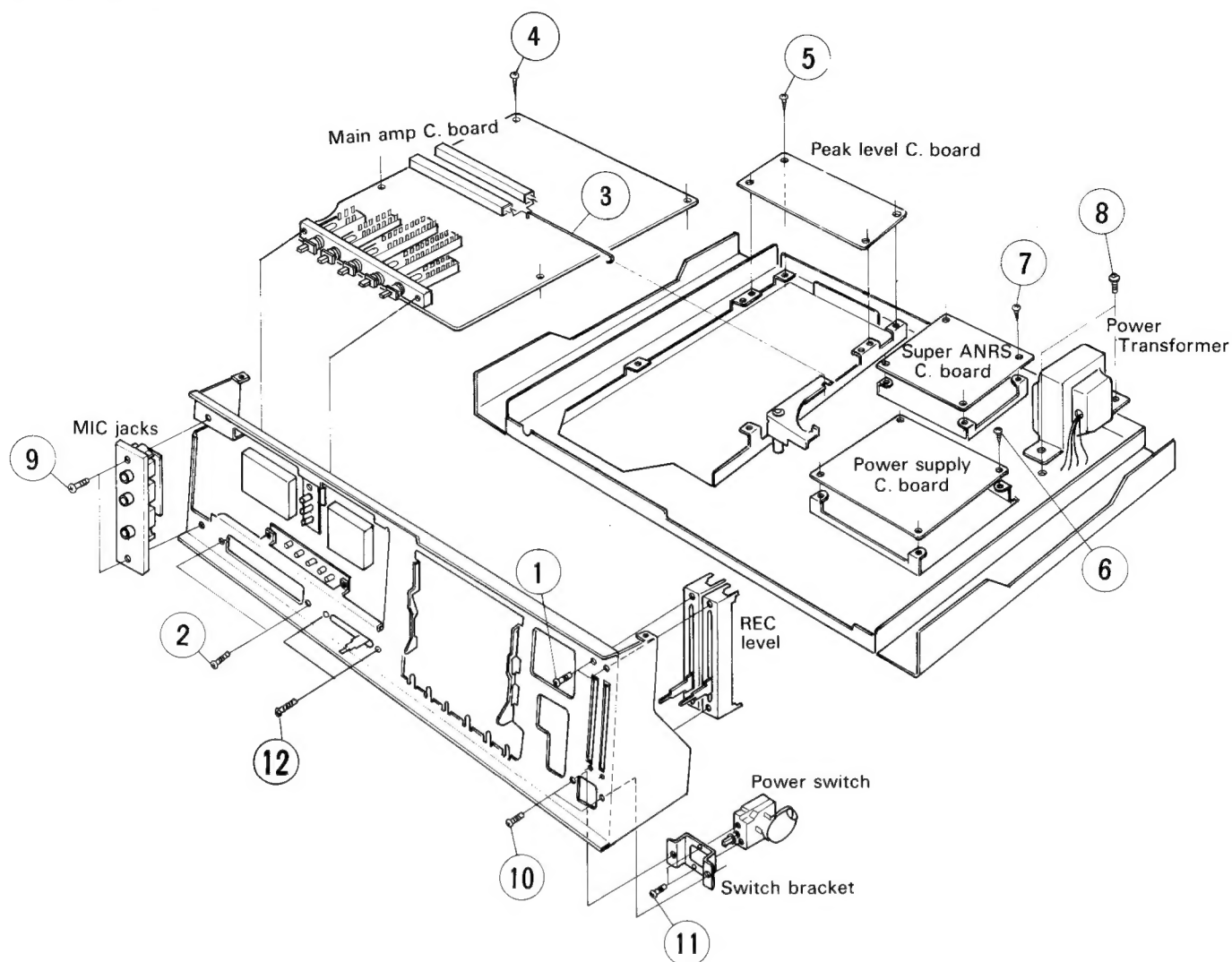
This cassette deck which features a compact design and high performance uses miniature-sized parts which are closely arranged. Use special care when servicing it.

## Enclosure Assembly



Parts Name	Procedure	Ref. No.	Remarks
OUTPUT LEVEL control knob and REC LEVEL control knobs	Pull off the knobs to front side.	①	
Cassette door	1. Press the EJECT button to open the cassette door. 2. Remove the cassette door by sliding it upward.	②	<ul style="list-style-type: none"> <li>○ When the cassette door be removed, can easy clean or demagnetize the head.</li> <li>○ When you replace the cassette door, insert it that ball bearings be full locked.</li> </ul>
Cover (with side panel)	1. Remove 2 screws and washers of both sides (L & R). 2. Remove 2 screws of rear side.	③ ④	Almost all parts of circuit board can be checked when only the cover is removed.
Bottom cover	1. Remove 3 screws and 3 washers fastening the bottom cover. 2. Remove one screw of the front panel.	⑤ ⑩	<ul style="list-style-type: none"> <li>○ 3φ 6 mm screws</li> <li>○ 3φ 12 mm screws</li> <li>○ Almost all pattern side of circuit board can be checked when only bottom cover is removed.</li> </ul>
Front panel	1. Remove 5 tapping screws fastening up side of the F. panel. 2. Remove 4 screws fastening the left and right sides of the F. panel.	⑥ ⑦	Remove the front panel after removing the cover and the bottom cover.
Push knobs	Pull off the push knobs to front side.	⑪	Input select, ANRS, Super ANRS, Tape select
Meter cover	Remove 4 special screws fastening the meter cover.	⑧	
Rear cover	Remove 4 screws (L and R sides of the rear cover) fastening the rear cover.	⑨	Remove the rear cover after removing the cover and the bottom cover.

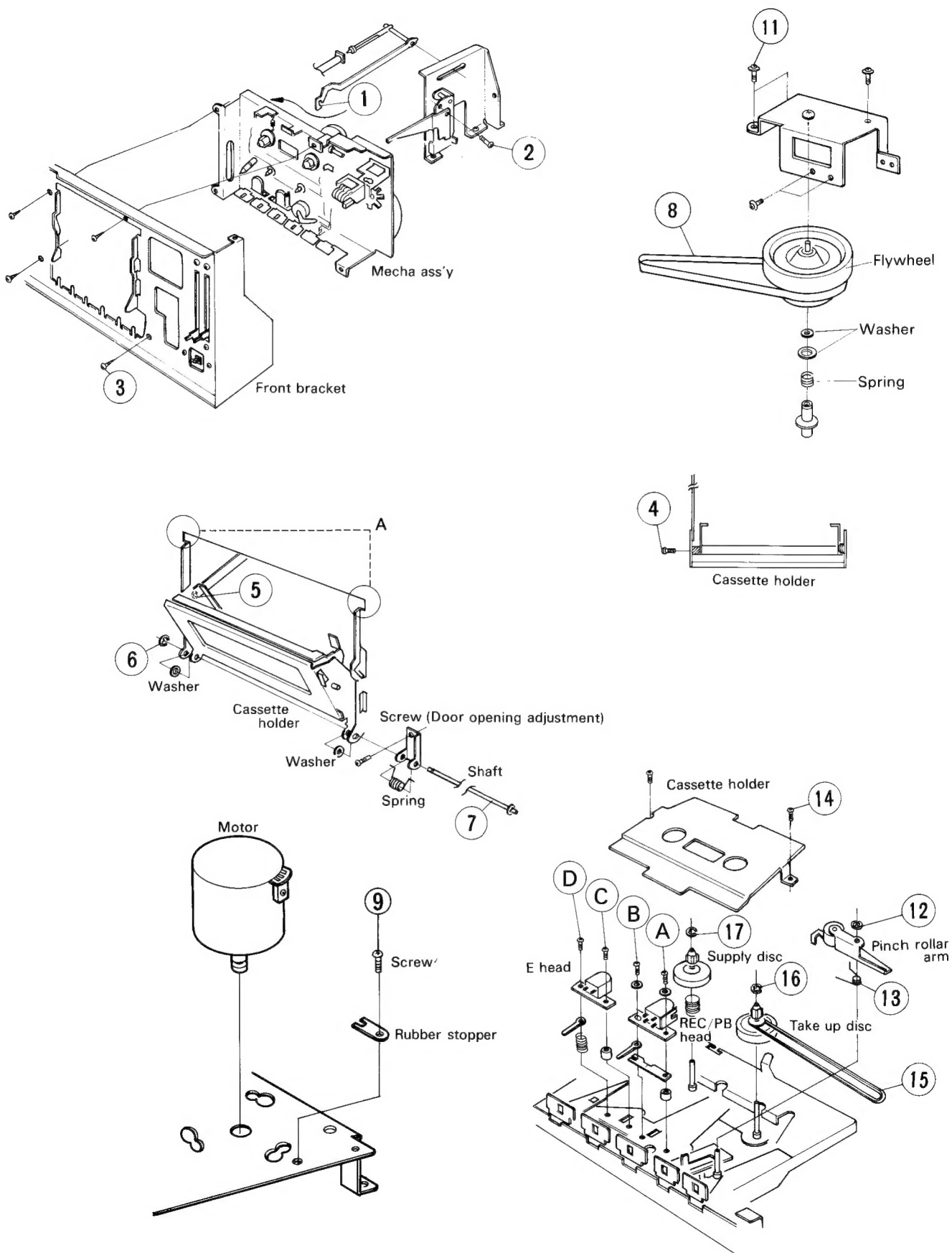
## Electrical Parts



Parts Name	Procedure	Ref. No.	Remarks
REC LEVEL controls	Remove 4 screws fastening the front bracket.	①	Remove the V. Resistor after removing the front panel.
Main amp. circuit board	1. Remove 2 screws fastening the switch ass'y. 2. Remove rod of the recording lever. 3. Remove 4 tapping screws fastening the main amp. circuit board.	② ③ ④	Remove the main amp. circuit board after removing the front panel.
Peak level C. board	Remove 4 tapping screws fastening the peak level C. board.	⑤	
Power supply C. board	Remove 4 tapping screws fastening the power supply C. board.	⑥	
Super ANRS C. board	Remove 4 tapping screws fastening the Super ANRS C. board.	⑦	
Power transformer	Remove 2 screws fastening the power transformer.	⑧	
MIC jack ass'y	Remove 2 screws fastening the MIC jack ass'y.	⑨	The left side of front bracket.
Power switch ass'y	1. Remove 2 screws fastening the SW bracket. 2. Remove 2 screws fastening the power SW ass'y.	⑩ ⑪	
Output level control	Remove 2 screws fastening the front bracket.	⑫	Remove the V. Resistor after removing the front panel.



## Mechanical Parts





Parts Name	Procedure	Ref. No.	Remarks
Mecha. ass'y	1. Depress the EJECT button to open the cassette door. Remove the brake arm from stud of cassette holder. 2. Remove a screw fastening the recording arm. 3. Remove 4 screws fastening the front bracket. 4. Pull off the mecha. ass'y to back side.	① ② ③	When removing the brake arm, be careful not to stain the "O" ring and don't less grease.
Cassette holder	1. Remove a screw fastening the cassette holder. 2. Remove "E" ring holding the shaft. 3. Pull off the shaft to right side. 4. Remove the cassette holder by sliding it upward on A position of panel bracket.	④ ⑥ ⑦	When replacing the cassette holder, don't forget spring and 2 washers of the shaft.
Motor	1. Remove the take up belt. 2. Remove the capstan belt. 3. Remove a screw fastening the rubber stopper. 4. Remove rotating angle 35° the motor.	⑧ ⑨	Be careful not to stain the belt.
Flywheel	1. Remove 2 screws fastening the muting SW bracket. 2. Remove the capstan belt. 3. Remove 5 screws fastening the flywheel holder. 4. Pull off the flywheel.	⑪	Be careful not to stain the belt. When replacing the flywheel, don't forget to insert a nylon washer to its shaft. (as same spring and washer)
Pinch roller arm ass'y	1. Remove "E" ring holding the pinch roller arm ass'y. 2. Remove spring on the arm ass'y.	⑫ ⑬	
Take-up disc	1. Remove 2 screws fastening the cassette holder. 2. Remove the counter belt. 3. Remove "E" ring holding the take-up disc. 4. Pull off the disc from the shaft.	⑭ ⑮ ⑯	
Supply disc	1. Remove the cassette holder. 2. Remove "E" ring holding the supply disc. 3. Pull off the disc from the shaft.	⑰	

**NOTE:** 1. Don't dirty, slippery and undue run-out the capstan belt and counter belt.

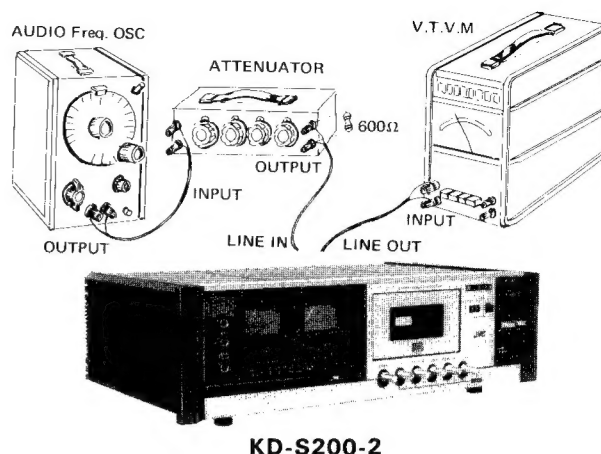
2. Adjust height of the motor pulley, when the capstan belt connect to the flywheel from the motor pulley, so that it will be parallel to the chassis.

# Adjustments

## Electrical Adjustment

Equipment and measuring instruments used for adjustment.

1. V.T.V.M. (measuring AC in millivolt)
2. Audio-frequency oscillator  
(range: 50 Hz – 20 kHz and output 0 dB with impedance 600  $\Omega$ )
3. Attenuator
4. Reference tapes for REC/PB  
Maxell-UD – normal tape  
TDK-SA – chrome tape
5. Reference tapes for playback  
VTT-664 (1 kHz 16 mM)  
VTT-666 (400 Hz 22 mM)
6. Resistors  
100  $\Omega$  (for measurement of the bias current)  
600  $\Omega$  (for attenuator matching)



KD-S200-2

Fig. 8

No.	Item	Procedure	Part	Rating	Remarks
1.	Level meter deflection	<ol style="list-style-type: none"> <li>1. Set the deck in the record mode, and set INPUT SELECT switch at LINE IN.</li> <li>2. Input 1 kHz signals (about 10 dBs) from LINE IN jacks and adjust volume control so that test points <u>12</u> and <u>62</u> are -3dBs.</li> <li>3. Adjust semi-fixed resistors VR103 and 203 in this condition it obtain zero VU meter reading.</li> </ol>	(Main amp. C. board TAA305204)  VR103, 203		The angle of meter deflection has been factory-adjusted, but should be adjusted when parts are replaced.  When adjust the level meter, don't use a headphone.
2.	Peak level	<ol style="list-style-type: none"> <li>1. Set as same mode at step (1) and adjust semi-fixed resistor VR703 so that the "0" indicator is lighting and no lighting at -1 dB from step (1) with attenuator.</li> <li>2. Adjust semi-fixed resistor VR704 so that the "-5" indicator is lighting at -5 dB from step (1) with attenuator.</li> <li>3. Adjust semi-fixed resistor VR705 so that the "-10" indicator is lighting at -10 dB from step (1) with attenuator and no lighting at -11 dB from step (1) with attenuator.</li> <li>4. Adjust semi-fixed resistor VR702 so that the "+3" indicator is lighting at +3 dB from step (1) and no lighting at +2 dB from step (1) with attenuator.</li> <li>5. Adjust semi-fixed resistor VR701 so that the "+6" indicator is lighting at +5 dB from step (1) with attenuator.</li> </ol>	(Peak level C. board TAA305306) VR703 VR704  VR705  VR702  VR701		
3.	Playback sensitivity	<ol style="list-style-type: none"> <li>1. Set equalizer switch at normal and playback reference tape VTT-664. Adjust semi-fixed resistors VR101 (L) and VR201 (R) so that test points <u>12</u> and <u>62</u> are -3 dBs, then level meters indicate zero VU (about 0.5 V at LINE OUT).</li> <li>2. Playback reference tape VTT-666 and check that the VU meter indicates CAL.</li> </ol>	(Main amp. C. board VR101, 201)	-3 dBs  zone of CAL mark	<ol style="list-style-type: none"> <li>1. Adjust playback sensitivity when heads are replaced.</li> <li>2. Make this adjustment after making sure level meter deflection angle is correct.</li> <li>3. Raise the output level control to maximum.</li> </ol>

No.	Item	Procedure	Part	Rating	Remarks
4.	Bias current	<ol style="list-style-type: none"> <li>Set the deck in record mode. Insert a <math>100\Omega</math> resistor into the ground side wiring of the head and connect the V.T.V.M. across the resistor, and set the BIAS SW at chrome or normal. First adjust for chrome tape, then for normal tape.</li> <li>After the deck correct the head wires, input the standard level of 1 kHz signals to use reference tape, and measure REC/PB frequency response at 10 kHz.</li> <li>Adjust semi-fixed resistors VR502, 504 (chrome), 501, 503 (normal) so that the 10 kHz frequency response does become <math>\pm 0</math> dBs. Repeat the recording and playback so that 10 kHz signals become correct frequency response. Level over at 10 kHz compared with 1 kHz — bias current less Level less at 10 kHz compared with 1 kHz — bias current over</li> </ol>	Main amp. C. board Chrome VR502, 504 Normal VR501, 503	Chrome 45 mV Normal 30 mV	<ol style="list-style-type: none"> <li>Adjust bias current when heads or other parts are replaced.</li> <li>Use the highclass V.T.V.M. for high frequency response.</li> <li>After the bias current adjustment, check the frequency response at 10 kHz signals.</li> </ol>
5.	Recording signal current	<ol style="list-style-type: none"> <li>Set the deck in the record mode.</li> <li>Input the 1 kHz signals to LINE IN jacks and adjust the recording level control so that the test points [12] and [62] are -13 dBs, make recording in such a way.</li> <li>Adjust the semi-fixed resistors VR104, 204 (chrome), VR105, 205 (normal) so that the test points are -13 dBs.</li> </ol>	(Main amp. C. board)  Chrome VR104,204 Normal VR105,205		<ol style="list-style-type: none"> <li>This adjustment is necessary when heads are replaced.</li> <li>Make this adjustment after adjusting steps (1) through (4).</li> <li>Check the frequency response at 10 kHz after this adjustment.</li> <li>Set EQ and BIAS switches according to type of tape used.</li> </ol>
6.	Super ANRS circuit  (DC bias)	<ol style="list-style-type: none"> <li>Disconnect +B of bias circuit so that oscillator does not operate. (Desolder the BIAS CUT in main amp circuit board.)</li> <li>Set the deck in the record mode.</li> <li>Apply signal of 1 kHz 0 dBs to LINE IN and adjust volume control so that test points [12] and [62] (in main amp circuit board) are 0 dBs.</li> <li>Then, connect the V.T.V.M. to test points (h) (H) in main amp circuit board and adjust below steps.</li> <li>Apply signal of 1 kHz, -40 dBs to LINE IN and adjust VRA01, B01 so that the level of the test points (h) and (H) is -34.3 dBs with ANRS ON.</li> <li>Apply signal of 5 kHz, -20 dBs to LINE IN and adjust VRA02, B02 so that the level of the test points (h) and (H) is -17.5 dBs with ANRS ON.</li> <li>When apply signal of 1 kHz to LINE IN and the level of the test points (h) and (H) is 0 dBs, adjust steps (5) through (6) so that level does not change when ANRS is turned on and off (<math>\pm 0.5</math> dB less).</li> <li>At input 10 kHz, adjust REC level control so that LINE OUT become -1 dB, and then at (OFF—ON) the super ANRS switch, check its level that output level become -6 dB down.</li> <li>Play back reference tape VTT-664 and check LINE OUT level so that it's compare are <math>\pm 1</math> dB less with ANRS SW on to off.</li> <li>Connect +B of bias circuit (Solder the printed in main amp circuit board for connect +B).</li> </ol>			<ol style="list-style-type: none"> <li>Set figure of ANRS circuit.</li> <li>Repeat steps (5) through (6).</li> </ol> <p>Step (5) is 5.7 dB up.</p> <p>Step (6) is 2.5 dB up.</p>

## Mechanical Adjustment

### 1. Replacement and adjustment of the head

(See (A) (B) (C) (D) in Fig. 8.)

If either of the record/playback head and the erase head shown low performance because of wear, broken wire or excessive magnetization, it should be replaced.

Part	Screws to be removed
REC/PB head	(A) , (B)
E head	(C) , (D)

### REC/PB head

After replacement, adjust the head for azimuth.

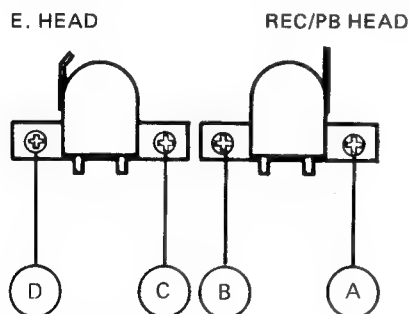
1. Insert the cord plug into the LINE OUT jack (or REC/PB), and connect the other end of the cord to a V.T.V.M. (vacuum tube voltmeter).
2. Play the azimuth adjustable test tape (e.g. JVC's VTT-653, 10kHz).
3. Turn the azimuth screw (B) so that the output will become maximum.  
If the azimuth adjustment test tape is not available, play a music cassette.  
When treble response becomes optimum, set the adjustable screw (B).
4. After this adjustment, the screw (B) should be locked with a bond.

If necessary, adjust playback sensitivity, REC bias current, REC signal current and bias trap.

### Erasing head

After replacement, adjust the head for height position.

1. Play the test tape (C-120) without cassette holder.
  2. Turn the adjustable screw (D) so that the test tape moves running to no curl the tape guide tip (up or under side).
- If checking is difficult, cut front upper side of the cassette of C-120 by a cutter knife, etc., then can easy check it.



### 2. Adjusting the motor speed

1. Play back reference tape (3000 Hz) and adjust the semi-VR in the motor that its speed become  $3000 \text{ Hz} \pm 2\%$  (2940 Hz – 3060 Hz).
2. KD-S200-2 need not to change cycle, whether the commercial frequency in your area is 50 or 60 Hz.

### 3. Standard torque

Fast forward torque : 70 gr-cm or more  
 Rewinding torque : 70 gr-cm or more  
 Take-up torque : 35–70 gr-cm

No. 4157

# Troubleshooting Guide

## [ELECTRICAL CIRCUIT]

### 1. Playback tone quality is poor.

1. Check the record/playback head for dust.
2. Check the record/playback head for wear.  
If worn excessively, the loss of treble response will result.
3. Check wiring for a short-circuit.  
Check each transistor for condition.

### 2. Recording tone quality is poor.

The playback tone quality of a recorded tape such as the audition tape is good, but the recording by this unit produces poor tone quality. In this case, the unit should be checked in the following manner.

1. By monitoring a music while recording, check the tone quality.
  2. If found poor, check the wiring of the recording system for a broken wire and short-circuit.
  3. If no irregularity is found, check the recording bias current. Also check the oscillation circuit.
3. For other failures, check the unit in the same manner as other amplifiers.

**[MECHANICAL SECTION] (wow and flutter)**

If wow and flutter increase, check the following points.

If there is defect in revolving parts, the wow and flutter generated will increase in proportion to the number of

revolutions.

Play a 3000 Hz test tape, and defective part can be detected from the sound.

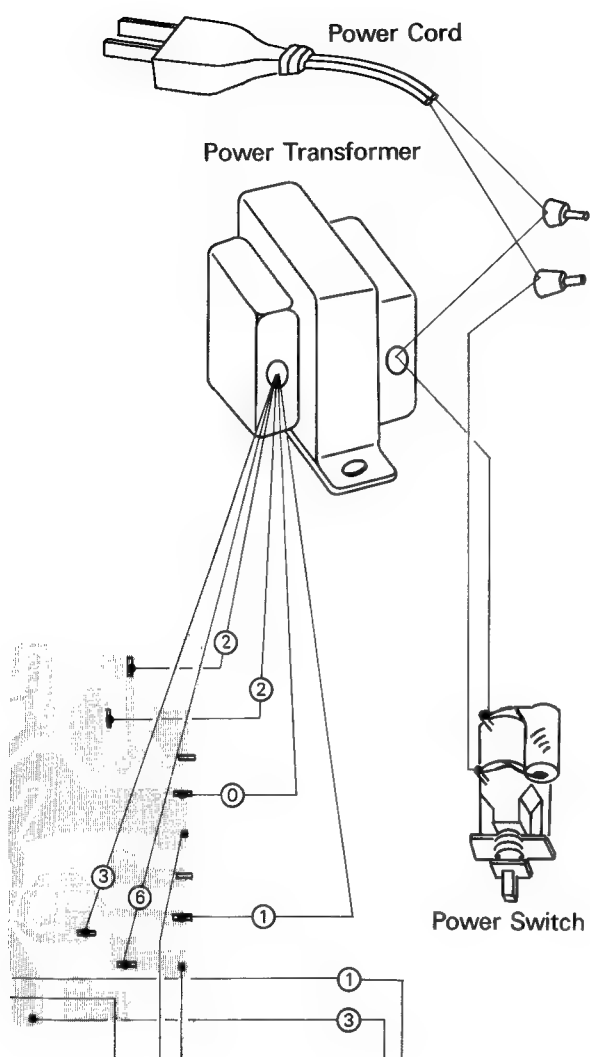
Section	Trouble	Repair
Capstan and fly-wheel	Capstan shaft has excessive run-out. Flywheel turns heavily. (shaft, seizure, thrust play, etc.)	Replace flywheel. Adjust plastic screw with flywheel holder. Clean the capstan shaft and the groove in the flywheel. Apply oil to the metal position. Replace the capstan assembly.
Pinch roller	Rough rotation (Deformation scratches, or dust). The angular position of the pinch roller is not correct. The pinch roller pressure is not correct.	Replace pinch roller. Clean the pinch roller or apply oil to the rotary shaft. Adjust the pinch roller so that it is parallel with the capstan shaft. Adjust the pinch roller spring.
Belt	Belt has undue run-out. Belt is dirty or slippery.	Clean the belt or remove the distortion. Replace the belt.
Back tension	Back tension is irregular, or back tension is too strong.	Replace supply disc. Replace back tension spring (under supply disc), or apply silicon grease.
Motor	Motor shaft has undue run-out. Motor pulley is oily and dusty.	Replace motor. Clean motor pulley.
Take-up idler arm	Pulley has deflection. Pulley is stuck.	Replace take-up idler arm.

**[MECHANICAL REPAIRS]**

Section	Trouble	Repair
Take-up idler arm	Standard take-up torque not available.	Replace take-up idler arm. Replace take-up idler arm pressure spring. Clean or replace capstan belt. Clean rubber rim of the right reel.
Reel disc and idler	Fast forward torque not available.	Clean rubber rim of the right reel or replace reel disc assembly. Clean or replace fast-forward idler. Clean rubber rim of the left reel or replace reel disc assembly. Clean rewind idler tire.
Door brake	Door does not open fully.  Braking not sufficient.	Apply a small quantity of silicon grease to the inside surface of the brake pipe. (SHIN ETSU KAGAKU KS-64 or equivalent) Replace brake pipe or rubber O-ring.
Auto-stop mechanism	Auto-stop not operating.	Check slide lever and solenoid iron core for smooth movement. Check if the locking and sliding parts of the operation button cam are well coated with molybdenum.

## Wiring

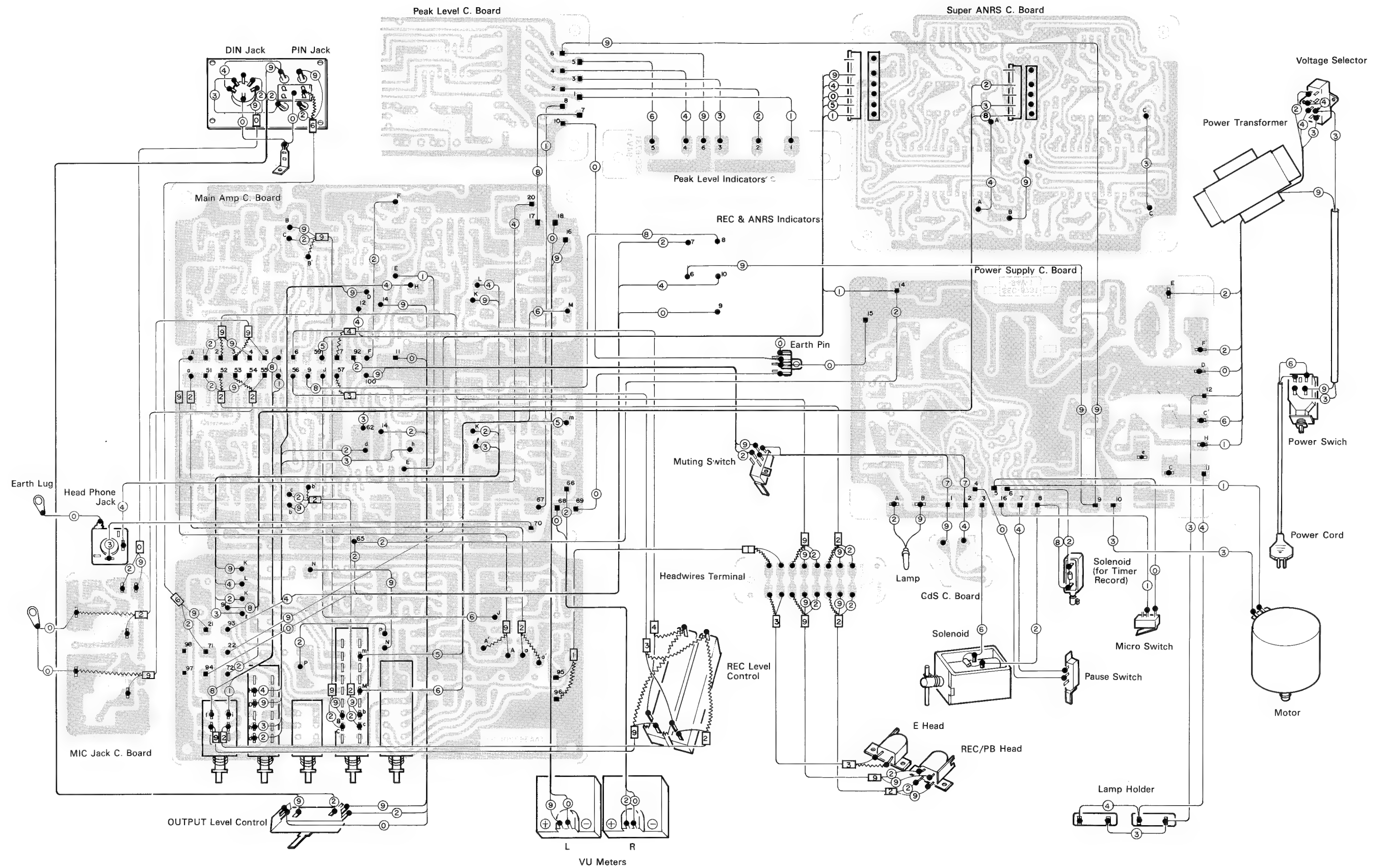
**KD-S200-2 C/J**



**Colour code are show below.**

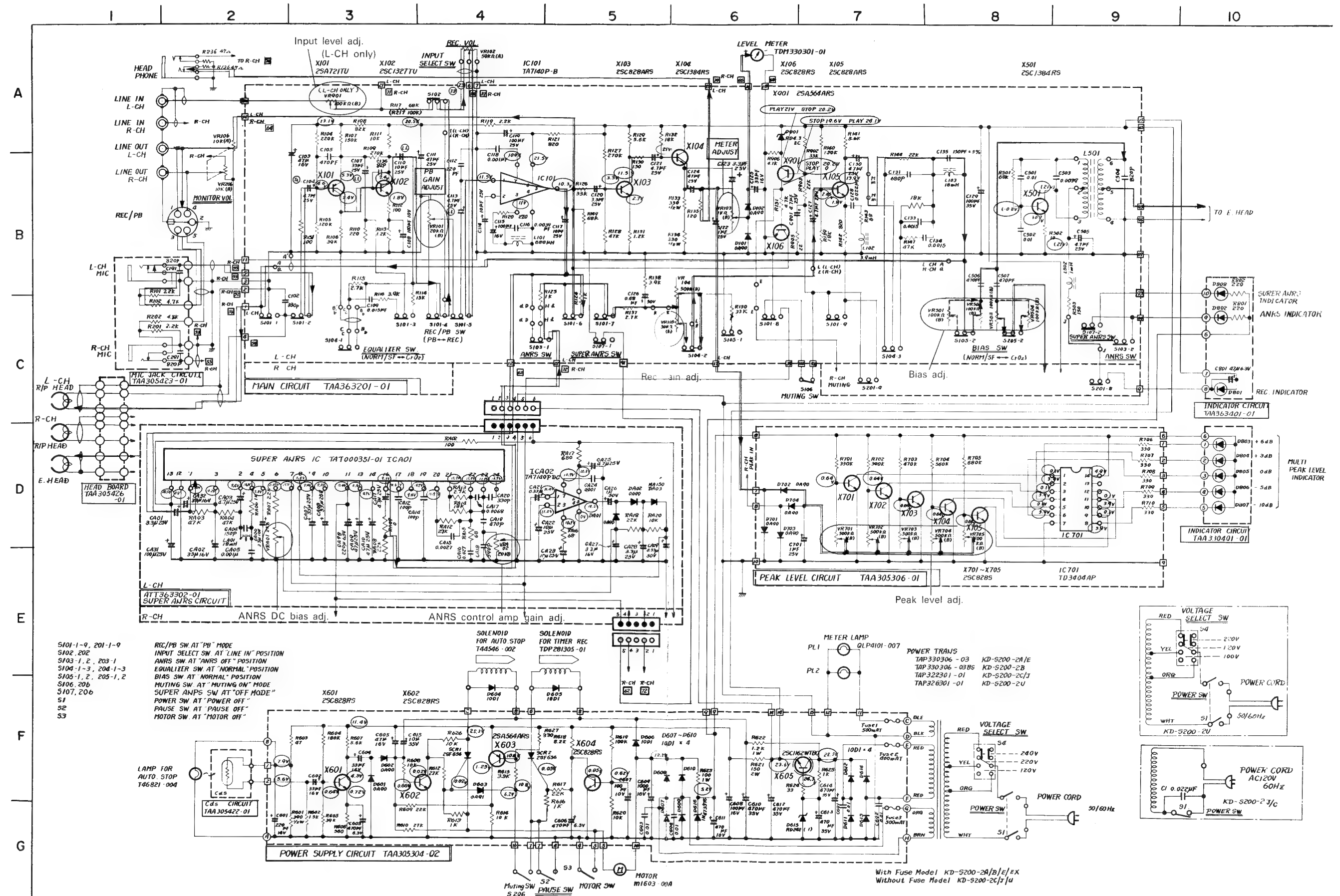
- |   |       |        |
|---|-------|--------|
| 1 | ..... | Brown  |
| 2 | ..... | Red    |
| 3 | ..... | Orange |
| 4 | ..... | Yellow |
| 5 | ..... | Green  |
| 6 | ..... | Blue   |
| 7 | ..... | Violet |
| 8 | ..... | Grey   |
| 9 | ..... | White  |
| 0 | ..... | Black  |

## KD-S200-2 A/B/E/U





### Standard Schematic Diagram of KD-S200-2



**[Variable resistors]**

VR101, 201	Playback gain adj.
VR102, 202	REC volume
VR103, 203	VU meter gain adj.
VR104, 204	REC gain adj. (chrome)
VR105, 205	" (normal)
VR106, 206	Output level control
VR301, 401	ANRS DC bias adj.
VR302, 402	ANRS control amp gain adj.
VR501	Left bias adj. (normal)
VR502	" (chrome)
VR503	Right bias adj. (normal)
VR504	" (chrome)
VR701, 702, 703, 704, 705	Peak level adj.
VR901	Input level adj. (L ch only)
VRA01, B01	ANRS DC bias adj.
VRA02, B02	ANRS control amp gain adj.

**[Switches]**

S101-1-9	REC/PB switch
S201-1-9	(at "Playback" mode)
S102, 202	Input select switch
	(at "LINE IN" mode)
S103-1, 203-1	ANRS switch
	(at "ANRS OFF" mode)
S104-1-3, S204-1-3	Equalizer switch
	(at "Normal" mode)
S105-1, 2, 205-1, 2	Bias switch
	(at "Normal" mode)
S106, 206	Muting switch
	(at "Muting on" mode)
S1	Power switch (at "OFF" mode)
S2	Pause switch (at "OFF" mode)
S3	Motor switch (at "OFF" mode)
S107-1, 203-1	Super ANRS switch (at "OFF mode)

**[Transistors]**

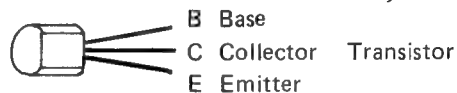
X101, 201	2SA721TU	Main amp. C.board
X102, 202	2SC1327TU	
X103, 203	2SC828ARS	
X105, 205	2SC828ARS	
X106, 206	2SC828RS	
X501	2SC828ARS	
X901	2SA564ARS	Peak level C. board.
X902	2SC828ARS	
X701-705	2SC828S . . . .	Power supply C. board
X601, 602	2SC828RS	
X603	2SA564ARS	
X604	2SC828RS	
X605	2SC1162WTBC	
SCR1, SCR2	2SF656	

**[IC]**

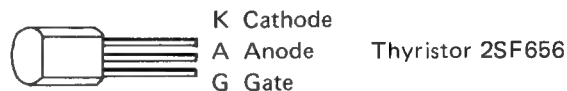
IC101, 201	TA7140P-B . . . .	Main amp. C. board
IC301	TAT000351-01	Super ANRS C. board
IC302	TA7140P-BC	
IC701	TD3404AP . . . .	Peak level C. board

**[Diodes]**

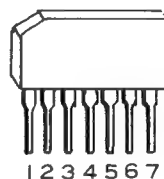
D101, 102	0A90	Main amp. C. board
D901	RD4.3EC	
DA03	1S2076A	ANRS C. board
DA01, 02	1S188FM	
D701, 702, 703, 704	0A90 . . . . .	Peak level C. board
D601, 602	0A90	Power supply C. board
D603	0A91	
D604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614	10D1	
D615	RD24E	
D616	1N4733T5	



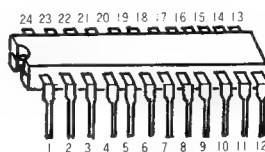
Transistor



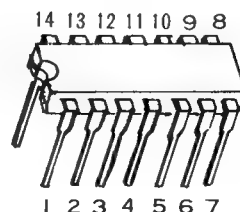
Thyristor 2SF656



IC TA7140P-B



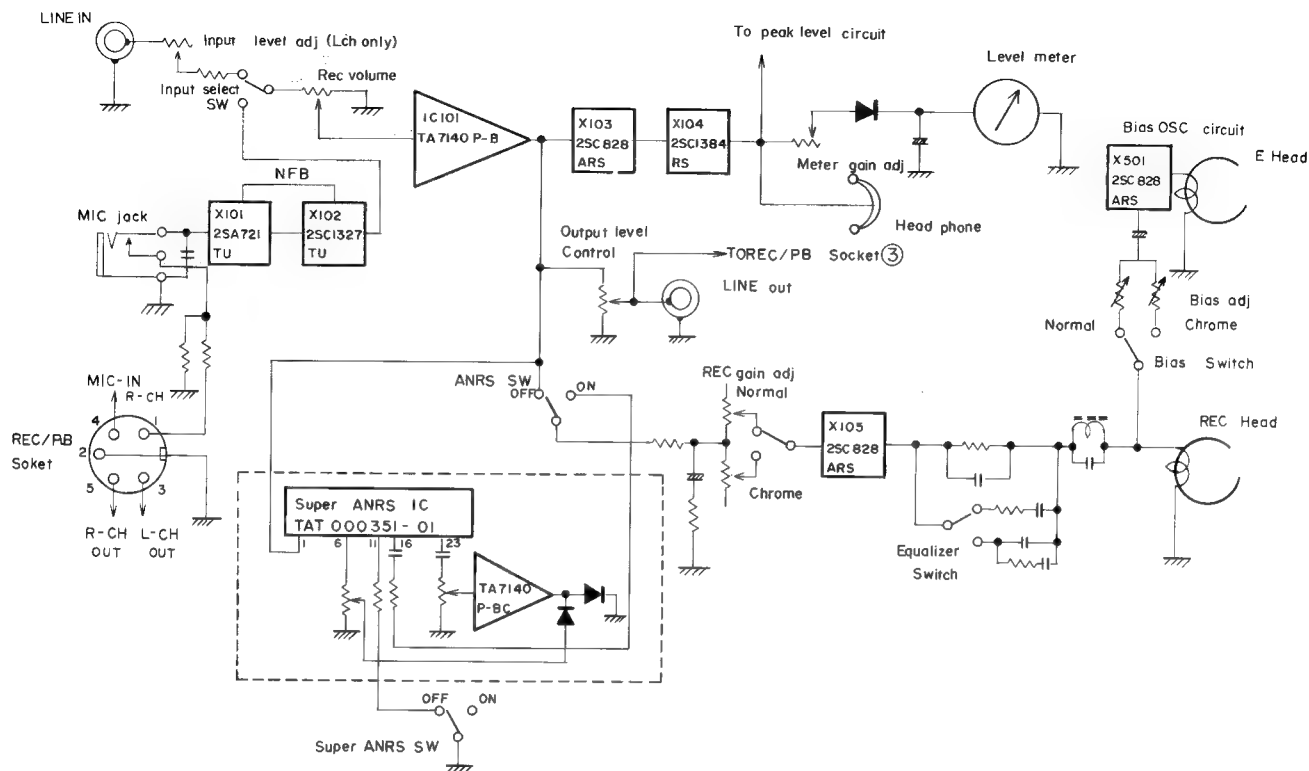
IC TAT000351-01



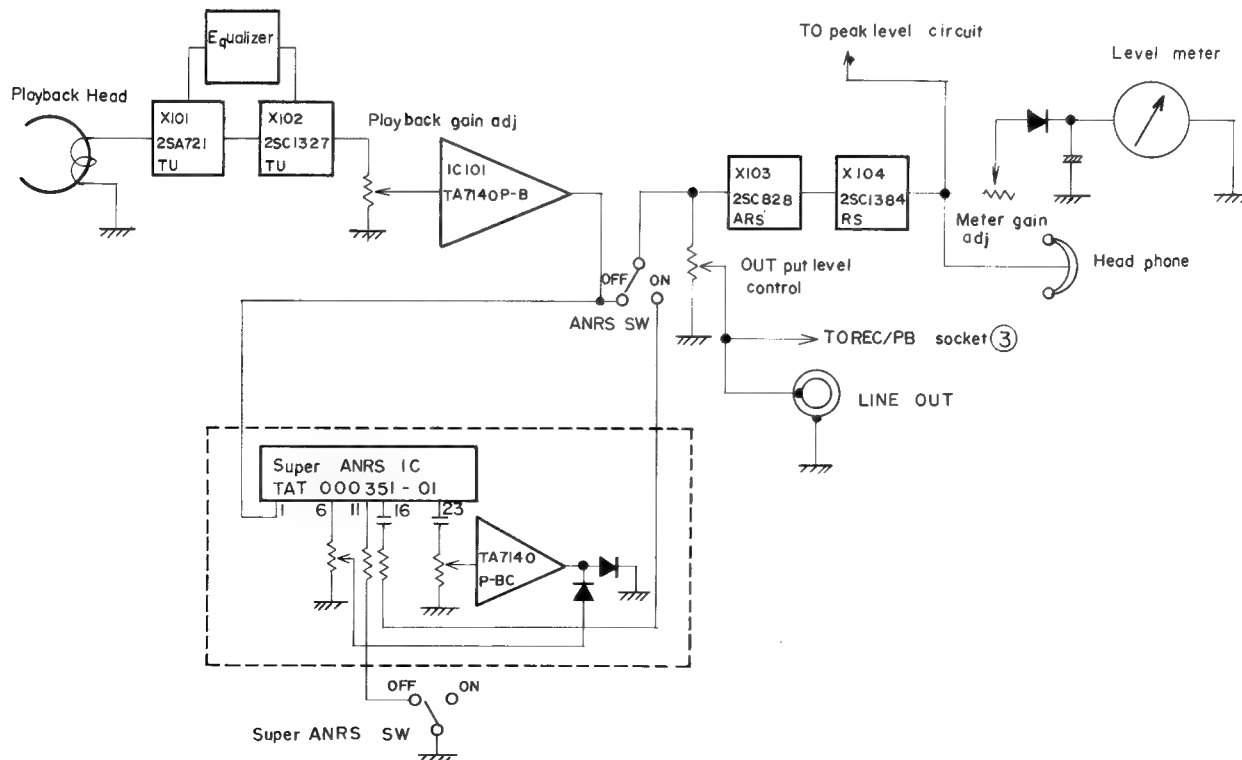
IC TD3404AP

# Block Diagram

## Recording system



## Playback system



# Circuit Board Parts

## Main Amp Circuit Board

All voltages are measured by DC V.T.V.M. without input signal at playback.

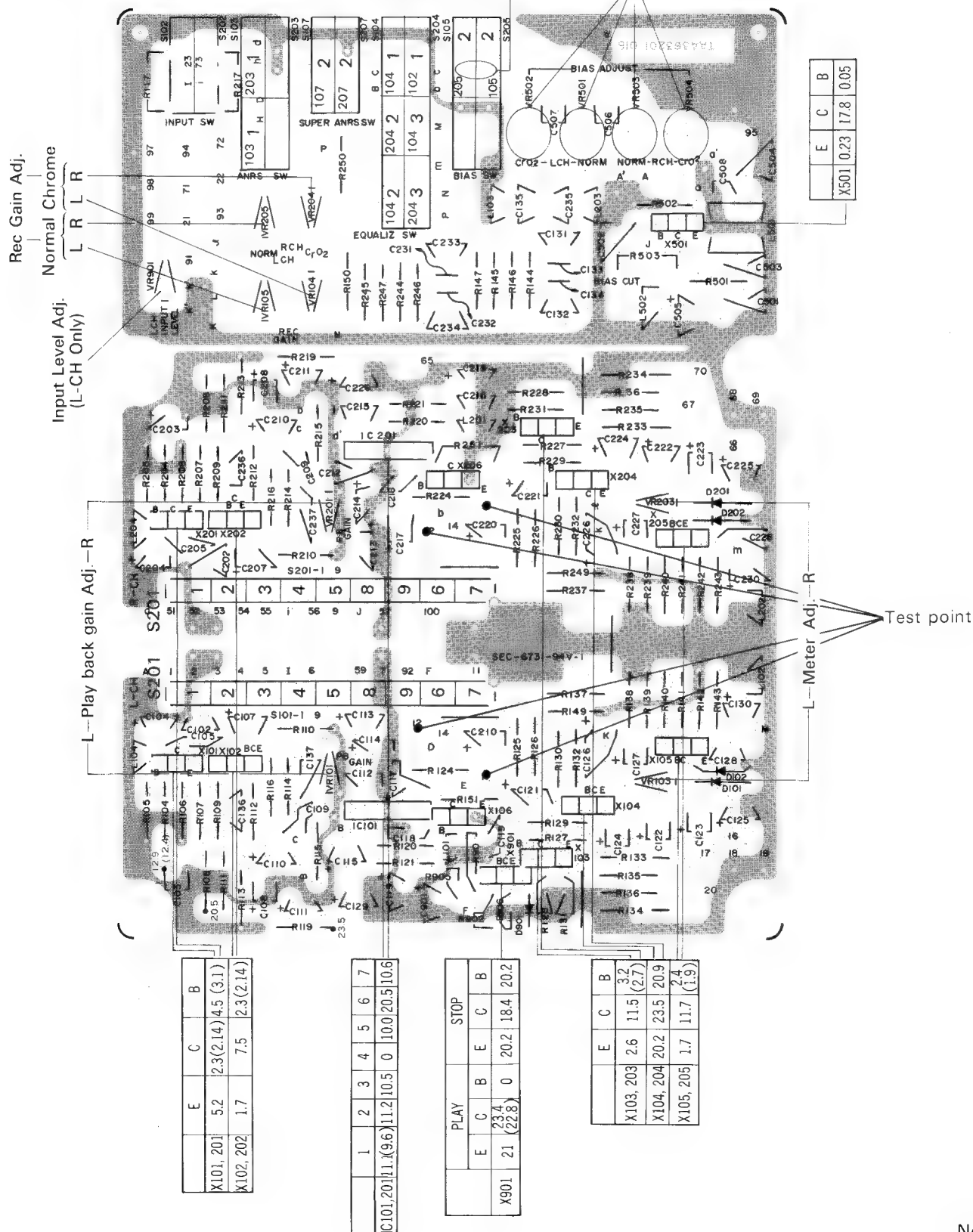
( ) voltages means by circuit tester.

When you measure the voltage by tester, we recommend you to use 20 k $\Omega$ /V impedance tester.

Bias Cut

When adjusting bias current, you must disconnect this soldering position.

Bias Adj.



# Main Amp Circuit Board Parts List

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
R104, 204	TAA363201-01	Circuit Board	for Main Amp.	1
R105, 205	QRD141K-224	C. Resistor	220 kΩ ¼ W	2
R106, 206	" -124	"	120 kΩ "	2
R107, 207, 140, 240	" -393	"	39 kΩ "	2
	" -154	"	150 kΩ "	4
R108, 208	" -823	"	82 kΩ "	2
R109, 209, 127, 227,	" -274	"	270 kΩ "	4
R110, 210, 120, 220	" -221	"	220 Ω "	4
R111, 211	" -103	"	10 kΩ "	2
R112, 212	" -101	"	100 Ω "	2
R113, 213	" -122	"	1.2 kΩ "	3
R114, 214	" -153	"	15 kΩ "	2
R115, 215, 137, 237	" -272	"	2.7 kΩ "	4
R116, 216, 138, 238	" -392	"	3.9 kΩ "	4
R117	QRD142K-683	"	68 kΩ "	1
R217	" -104	"	100 kΩ "	1
R119, 219	QRD141K-222	"	2.2 kΩ "	2
R121, 221	QRD146K-821	"	820 Ω "	2
R124, 224, 125, 225	QRD141K-102	"	1 kΩ "	4
R126, 226, 150, 250	" -333	"	33 kΩ "	4
R128	QRD143K-473	"	47 kΩ "	1
R228	QRD141K-473	"	47 kΩ "	1
R129, 229	" -562	"	5.6 kΩ "	2
R130, 230	" -151	"	150 Ω "	2
R131	QRD143K-122	"	1.2 kΩ "	1
R132, 232, 139, 239, 146, 246	QRD141K-183	"	18 kΩ "	6
R135, 235	" -121	"	120 Ω "	2
R136, 236	QRD143K-470	"	47 Ω "	2
R141, 241	QRD141K-562	"	5.6 kΩ "	2
R142, 242	" -821	"	820 Ω "	2
R143, 243	" -680	"	68 Ω "	2
R144, 244	" -223	"	22 kΩ "	2
R147, 247	QRD141K-473	C. Resistor	47 kΩ ¼ W	2
R149, 249, 150, 250, 501	" -683	"	68 kΩ "	5
R902	QRD143K-333	"	33 kΩ "	1
R903	" -223	"	22 kΩ "	1
R905	" -220	"	22 Ω "	1
R906	" -472	"	4.7 kΩ "	1
R151, 251	QRD141K-472	"	4.7 kΩ "	2
R152, 252	QRD143K-101	C. Resistor	100 Ω ¼ W	2
R133, 233, 134, 234	QRD121K-331	"	330 Ω ½ W	4
R502	QRD146K-100	"	10 Ω ¼ W	1
R503	" -151	"	150 Ω "	1
C102, 202, 105, 205	QCS11HK-471	Fixed C. Capacitor	470 pF DC 50 V	2
C103, 203	QEB41EM-476	E. Capacitor (Low Leak)	47 μF 25 V	2
C104, 204	QEE41EM-475	" (Tantal)	4.7 μF "	2
C107, 207	QEB41EM-336	" (Low Leak)	33 μF "	2
C108, 208	QEW41AA-107	E. Capacitor	100 μF 10 V	2
C109, 209	QFM41HJ-153	Mylar Capacitor	0.015 μF 50 V	2
C110, 210	QEW41EA-106	E. Capacitor	10 μF 25 V	2
C112, 212	QCS11HK-221	Fixed C. Capacitor	220 pF 50 V	2
C113, 213	QEB41EM-475	E. Capacitor (Low Leak)	4.7 μF 25 V	2
C114, 214	QEW41EA-106	E. Capacitor	10 μF 25 V	2
C115, 215	QEW41CA-107	"	100 μF 16 V	2

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
C116, 216	QFM41HJ-392	Mylar Capacitor	0.0039 $\mu$ F 50 V	2
C117, 217	QEW41EA-106	E. Capacitor	10 $\mu$ F 25 V	2
C118, 218	QFM41HK-182	Mylar Capacitor	0.0018 $\mu$ F 50 V	2
C120, 220	QEW41EA-335	E. Capacitor	3.3 $\mu$ F 25 V	2
C121,221,127,227, 130,230,505,901	QEW41EA-475	"	4.7 $\mu$ F 25 V	8
C122, 222	" -105	"	1 $\mu$ F 25 V	2
C123,223	" -335	"	3.3 $\mu$ F "	2
C125, 225	QEW41CA-336	"	3.3 $\mu$ F 16 V	2
C126, 226	QEB41HM-684M	" (Low Leak)	0.68 $\mu$ F 50 V	2
C128, 228	QFM41HJ-223	Mylar Capacitor	0.022 $\mu$ F "	2
C131, 231	QCS11HK-681	Fixed C. Capacitor	680 pF "	2
C134, 234, 133, 233	QFM41HK-152	Mylar Capacitor	0.0015 $\mu$ F "	4
C135, 235	QCS11HJ-151	Fixed C. Capacitor	150 pF "	2
C136, 236	QCS11HK-820	"	82 pF "	2
C137, 237, 102, 202	" -331	"	330 pF "	4
C501, 502	QFM42AK-103	Mylar Capacitor	0.01 $\mu$ F 10 V	2
C503	" -392	"	0.0039 $\mu$ F "	1
C504	QFS42BK-821	Polystyrol Capacitor	820 pF	1
C506, 507	QFS42BK-471	"	470 pF	2
C111,211,124,224	QEW41EA-476	E. Capacitor	47 $\mu$ F 25 V	4
C119, 219	" -107	"	100 $\mu$ F "	2
C129, 229	QEW41VA-107M	"	100 $\mu$ F 35 V	2
VR101, 201	QVP8A0B-024	V. Resistor	20 k $\Omega$	2
VR103, 203	" -023	"	2 k $\Omega$	2
VR104,204,105,205	" -054	"	50 k $\Omega$	4
VR901	" -015	"	100 k $\Omega$	1
VR501,502,503,504	QVP4A0B-104	V. Resistor		4
L101, 201	TAC000324-06	Inductor	680 $\mu$ H	2
L102, 202	" -08	"	3.9 mH	2
L103, 203	" -01	"	18 mH	2
L502	" -03	"	1 mH	1
L501	TAB345518-01	Osc. Coil		1
S101(1-9),201(1-9)	QSS9201-001	Slide Switch		2
S102,202,103(1,2),203-1, 107(1,2),104(1-3),204 (1-3),207(1,2),105(1, 2), 205(1,2)	OSP0259-001	Push SW. Ass'y		1
D901	RD4.3EC	Zener Diode		1
X101, 201	2SA721TU	Si. Transistor		2
X102, 202	2SC1327TU	"		2
X103, 203, 105, 205	2SC828ARS	"		4
X501, 104, 204,	2SC1384RS	"		3
X106, 206	2SC828RS	"		2
X901	2SA954ARS	"		1
D102, 202	0A90	Ge. Diode		2
IC101, 201	TA7140PB	Integrated Circuit		2
	E43727-002	Tab		44
	TAS356406-02	Shield Plate		1

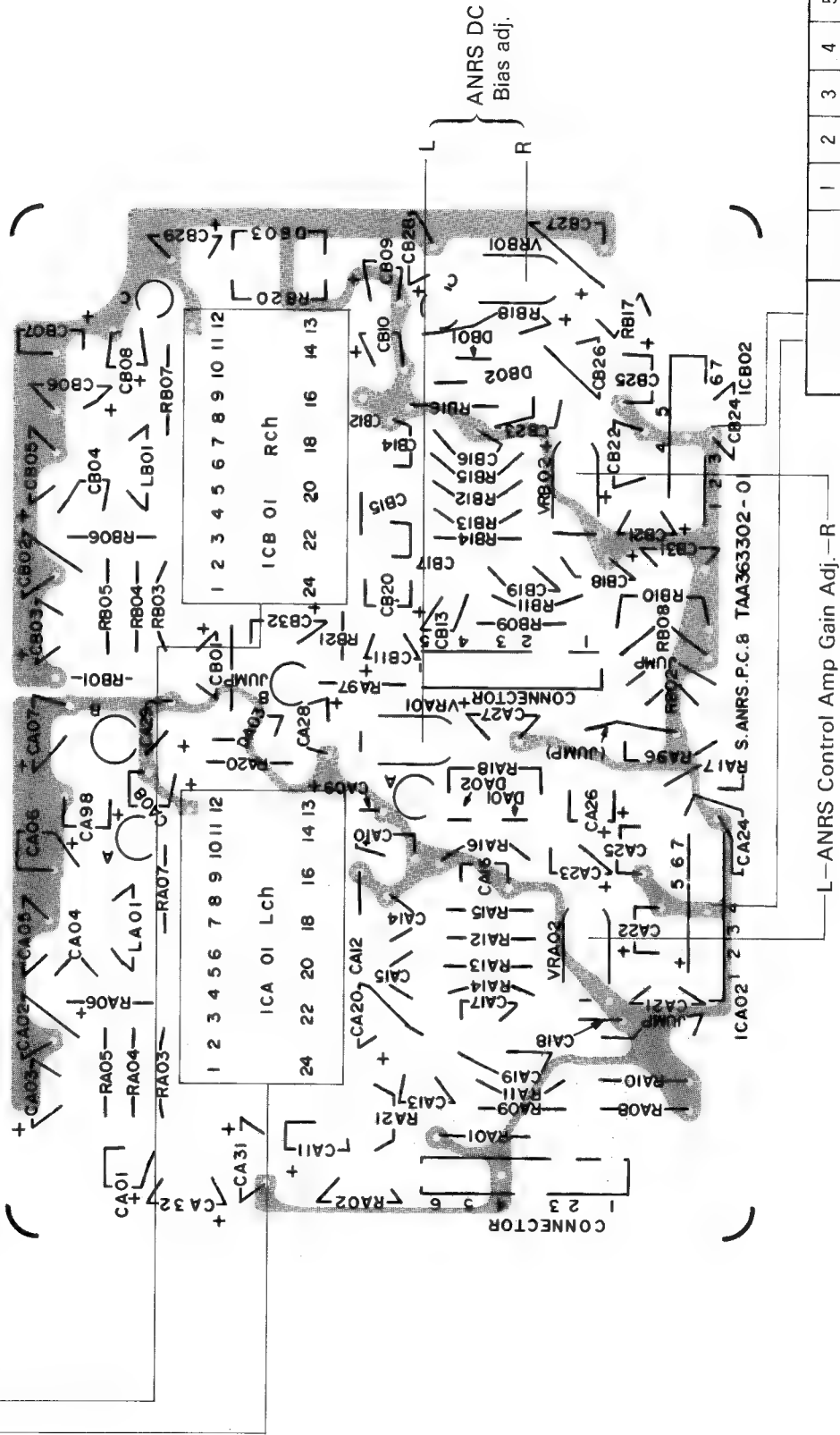
Supper ANRS Circuit Board

All voltages are mesured by DC V.T.V.M. without input signal at playback.  
( ) voltages means by circuit tester.

When you measure the voltage by tester, we recommend you to use 20 kΩ/V impedance tester.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
IC A01, B01																								
V.T.V.M.	10.0	9.4	10.2	10.1	7.8	2.0	1.0	0.5	9.4	9.4	0.4	0.1	0.7	9.3	20.5	9.3	10.6	9.4	10.7	11.9	11.9	11.9	11.9	16.9
Circuit Tester	9.5	9.4	10.2	9.6																				
TAT000351-01																								

Same as V.T.V.M.



	1	2	3	4	5	6	7
IC A02, B02							
V.T.V.M.	11.4	11.5	10.9	0	10.2	20.8	10.9
Circuit Tester	10.0						
TAT140PBC							

Same as V.T.V.M.



## Super ANRS Circuit Board Parts List

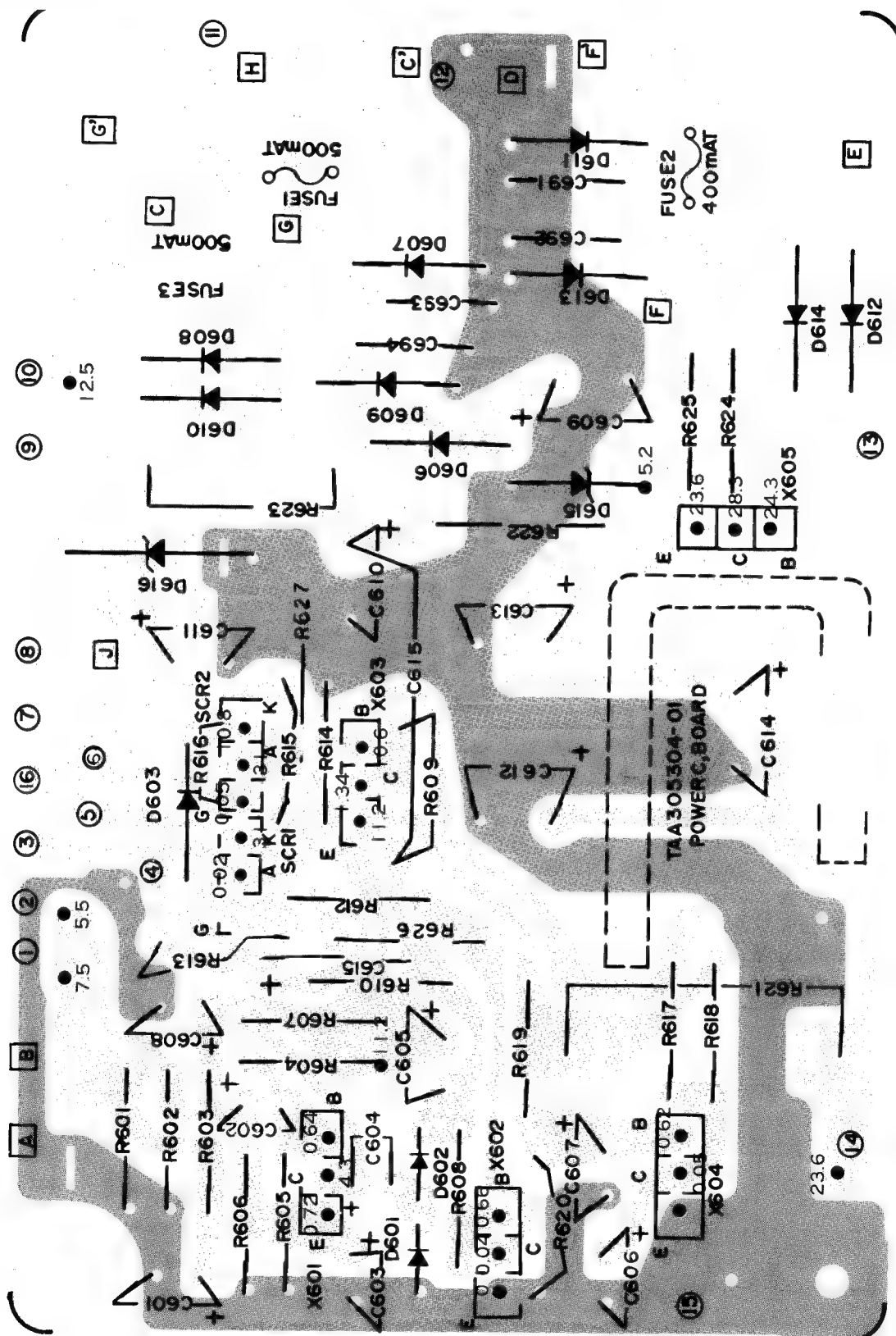
Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
RA01, B01	*TAA363302-01	Circuit Board		1
RA02, B02	QRD181J-223	C. Resistor	22 k $\Omega$	2
RA03,B03,A96,A04,B04	QRD146K-181	"	180 $\Omega$ 1/4 W	2
RA05, B05	QRD181J-473	"	47 k $\Omega$ 1/8 W	5
	" -562	"	5.6 k $\Omega$ "	2
RA06, B06,	" -102	"	1 k $\Omega$ "	2
RA07, B07	" -222	"	2.2 k $\Omega$ "	2
RA08,B08,A18,B18	" -223	"	22 k $\Omega$ "	4
RA12,B12,A13,B13	" -272	"	2.7 k $\Omega$ "	4
RA14, B14	" -183	"	18 k $\Omega$ "	2
RA15, B15	" -680	"	68 $\Omega$ "	2
RA16, B16	" -390	"	39 $\Omega$ "	2
RA17, B17	QRD146K-681	"	680 $\Omega$ 1/4 W	2
RA20, B20	QRD181J-103	"	10 k $\Omega$ 1/8 W	2
RA97	QRD181J-471	"	470 $\Omega$ 1/8 W	1
CA01, B01	QWY123-040	Bus Wire	for Jump	6
CA02,B02,A06,B06,A09,	QEW41EA-105	E. Capacitor	1 $\mu$ F 25 V	2
B09,A10,B10,A27,B27,	QEW41CA-336	"	33 $\mu$ F 16 V	12
A32,B32				
CA03,B03,A11,B11	QEW41EA-475	"	4.7 $\mu$ F 25 V	4
CA04, B04	QCS11HK-151	Fixed C. Capacitor	150 pF 50 V	2
CA05,B05	QCY41HK-102	"	0.001 $\mu$ F 50 V	2
CA07,B07,A08,B08	QEW41CA-336	E. Capacitor	33 $\mu$ F 16 V	4
CA12,B12,A14,B14	QCS11HK-101	Fixed C. Capacitor	100 pF 50 V	4
CA15, B15	QFM41HJ-272	Mylar Capacitor	0.0027 $\mu$ F 50 V	2
CA16, B16	" -273	"	0.027 $\mu$ F 50 V	2
CA17, B17	" -682	"	0.0068 $\mu$ F 50 V	2
CA18, B18	QCS11HK-391	Fixed C. Capacitor	390 pF 50 V	2
CA19, B19	" -471	"	470 pF 50 V	2
CA20, B20	" -331	"	330 pF 50 V	2
CA21,B21,A29,B29	QEB41HM-334M	E. Capacitor (Low Leak)	0.33 $\mu$ F 50 V	4
CA22,B22,A23,B23	QEW41EA-106	E. Capacitor	10 $\mu$ F 25 V	4
CA24, B24	QFM41HK-102	Mylar Capacitor	0.001 $\mu$ F 50 V	2
CA25, B25	QEW41EA-476	E. Capacitor	47 $\mu$ F 25 V	2
CA26, B26	" -105	"	1 $\mu$ F 25 V	2
CA28, B28	" -335	"	3.3 $\mu$ F 25 V	2
CA31, B31	" -107	"	100 $\mu$ F 25 V	2
CA98	QEW40JA-227	"	220 $\mu$ F	1
VRA01, B01	QVP8A0B-023	V. Resistor	2 k $\Omega$	2
VRA02, B02	" -024	"	20 k $\Omega$	2
LA01, B01	TAC000324-01	Inductor	18 mH	2
DA01,B01,A02,B02	0A90	Ge. Diode		4
DA03, B03	MA150	Si. Diode		2
ICA02, B02	TA7140PBC	Integrated Circuit		2
ICA01, B01	TAT000351-01	"	Super ANRS	2
	QMC0527-001	Plug Ass'y		1
	QMC0627-001	"		1

## Power Supply Circuit Board

Red print is shown the voltage (V) of playback mode.

( ) voltages means by circuit tester.

When you measure the voltage by tester, we recommend you to use 20 k $\Omega$ /V impedance tester.



## Power Supply Circuit Board Parts List

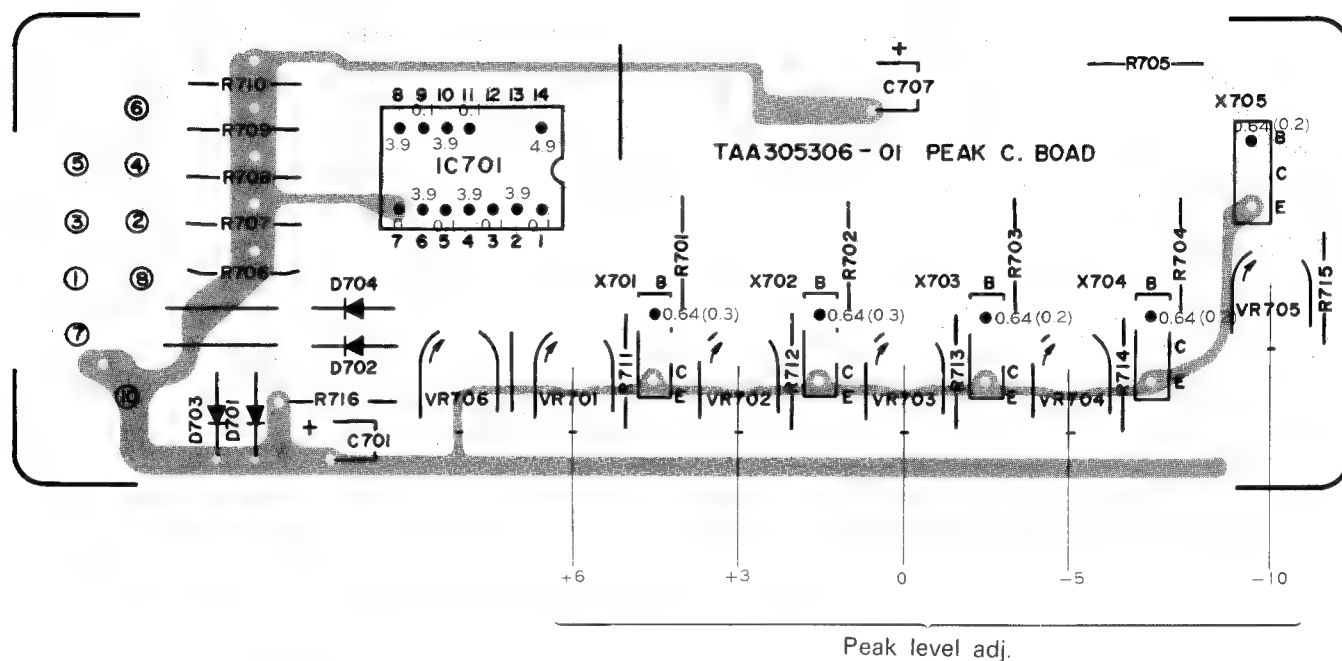
Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
R601	TAA-305304-03	Circuit Board	for Power Supply	1
R602	QRD121K-391	C. Resistor	390 $\Omega$ $\frac{1}{2}$ W	1
R603	QRD142K-152	"	1.5 k $\Omega$ $\frac{1}{4}$ W	1
R604	QRD146K-330	"	33 $\Omega$ "	1
R605	QRD142K-184	"	180 k $\Omega$ "	1
R605	" -393	"	39 k $\Omega$ "	1
R606	" -561	"	560 $\Omega$ "	1
R607, 618	" -562	"	5.6 k $\Omega$ "	2
R608, 614, 620, 626	" -103	"	10 k $\Omega$ "	4
R609	" -223	"	22 k $\Omega$ "	1
R610	" -273	"	27 k $\Omega$ "	1
R612	" -272	"	2.7 k $\Omega$ "	1
R613	" -102	"	1 k $\Omega$ "	1
R615	QRD142K-332	C. Resistor	3.3 k $\Omega$ $\frac{1}{4}$ W	1
R616	QRD143K-102	"	1 k $\Omega$ "	1
R617	" -222	"	2.2 k $\Omega$ "	1
R619	" -104	"	100 k $\Omega$ "	1
R621	QRG026J-151	OMF Resistor	150 pF	1
R622	QRG016J-122	"	0.0012 pF	1
R623	" -101	"	100 pF	1
R624	QRD146K-330	C. Resistor	33 $\mu$ F $\frac{1}{4}$ W	1
R625	" -102	"	1 k $\Omega$ "	1
R627	QRD143K-331	"	330 $\Omega$ "	1
C601	QEW41CA-227	E. Capacitor	220 $\mu$ F 16 V	1
C602, 604	" -336	"	33 $\mu$ F "	2
C603, 606	QEW40JA-477	"	470 $\mu$ F 6.3 V	2
C605	QEW41CA-476	"	47 $\mu$ F 16 V	1
C607	QEW41AA-107	"	100 $\mu$ F 10 V	1
C608	QEW41CA-107	"	100 $\mu$ F 16 V	1
C609	" -108	"	1000 $\mu$ F 16 V	1
C610, 612, 613, 614	QEW41VA-477	"	470 $\mu$ F 35 V	4
C611	QEW41AA-477	"	470 $\mu$ F 10 V	1
C615	QEW41VA-106	"	10 $\mu$ F 35 V	1
C691, 692, 693, 694	QCF12HP-103	Fixed C. Capacitor	0.01 $\mu$ F	4
	A43596-001	Tab	"	4
	E43727-002	"	"	15
D603	E40130-001	Ge. Diode		8
X601, 602, 604	0A91	Si. Transistor		1
X603	2SC828RS	"		3
X605	2SA564ARS	"		1
	2SC1162WTBC	"		1
SCR1, 2	2SF656	SCR		2
D615	RD24E(1)	Zener Diode		1
D616	1N4733T5	"		1
D601, 602	0A90	Ge. Diode		2
D606-614	T30155-001	Si. Diode		9
	TAZ000331-02BS	Fuse Holder	KD-S200-2A/B/E/U	6
	QMF51A2-R50	Fuse	500 mA, KD-S200-2A/E/U	1
	QMF51A2-R50LBS	"	500 mA, KD-S200-2B	1
	QMF51A2-R40	"	400 mA, KD-S200-2A/E	1
	QMF51A2-R40LBS	"	400 mA, KD-S200-2B	1
	QMF51A2-R50	"	500 mA, KD-S200-2A/E	1
	QMF51A2-R50LBS	"	500 mA, KD-S200-2B	1
	TAR272448-01	Heat Sink		1
	LPSP3008ZS	Screw	for X605	1

## Peak Level Circuit Board

Red print is shown the voltage (V) of playback mode.

( ) voltages means by circuit tester.

When you measure the voltage by tester, we recommend you to use 20 k $\Omega$ /V impedance tester.

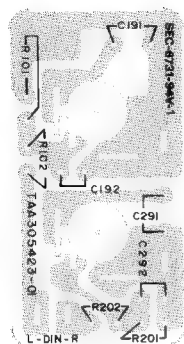


### Peak Level Circuit Board Parts List

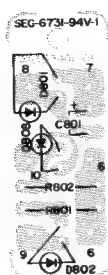
Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
R701	TAA305306-01	Circuit Board	for Peak	1
R702	QRD142K-334	C. Resistor	330 k $\Omega$ ¼ W	1
R703	" -394	"	390 k $\Omega$ "	1
R704	" -474	"	470 k $\Omega$ "	1
R705	" -564	"	560 k $\Omega$ "	1
R706,707,708,709,710	" -684	"	680 k $\Omega$ "	1
C701	" -331	"	330 $\Omega$ "	5
C707	QEW41EA-105	E. Capacitor	1 $\mu$ F 25 V	1
VR701,702,703,704,705	QEW41AA-227	"	"	1
	QVP8A0B-055	V. Resistor	500 k $\Omega$ (B)	5
D701,702,703,704	0A90	Ge. Diode		4
X701,702,703,704,705	2SC828ST	Si. Transistor		5
IC701	TD3404AP	Integrated Circuit		1
	E43727-002	Tab		9

## Other Circuit Board

MIC Jack C. Board



Indicator C. Board



Peak Level Indicator C. Board



Head Wire C. Board



CdS C. Board



## Other Circuit Board Parts List

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
<b>(MIC Jack C. Board)</b>				
R101, 201	TAA305423-01	Circuit Board	for MIC Jack	1
R102, 202	QRD143K-122	C. Resistor	1.2 k $\Omega$ ¼ W	2
R102, 202	" -472	"	4.7 k $\Omega$ "	2
C191, 291	QCY41HK-821	Fixed Ceramic Capacitor	820 pF	2
	E40516-001	Tab		4
<b>(Indicator C. Board)</b>				
	TAJ305307-02	Jack Ass'y	for MIC & Headphone	1 set
<b>(Indicator C. Board)</b>				
D803,804,805,806,807	TAA330401-01	C. Board	for Peak Level Indicator	1
	TLR102	LED		5
	TER305427-01	Spacer		5
<b>(Indicator C. Board)</b>				
	TAA330402-01	C. Board	for Indicator (REC, ANRS)	1
D801	TLR102	LED		1
D802, 808	TLG102	LED		2
	TER305427-01	Spacer		3
D801, 802	QRD146K-221	C. Resistor	220 $\Omega$ ¼ W	2
C801	QEW40JA-476	E. Capacitor		1
<b>(Other C. Board)</b>				
	TAA305426-01	Circuit Board	for Headwire Terminal	1
	TAA305422-01	Circuit Board	for CdS	1
	T45616-001	CdS Photo-cell		1
	TAA305459-02	Circuit Board	for PIN	1

## Mechanical Component List

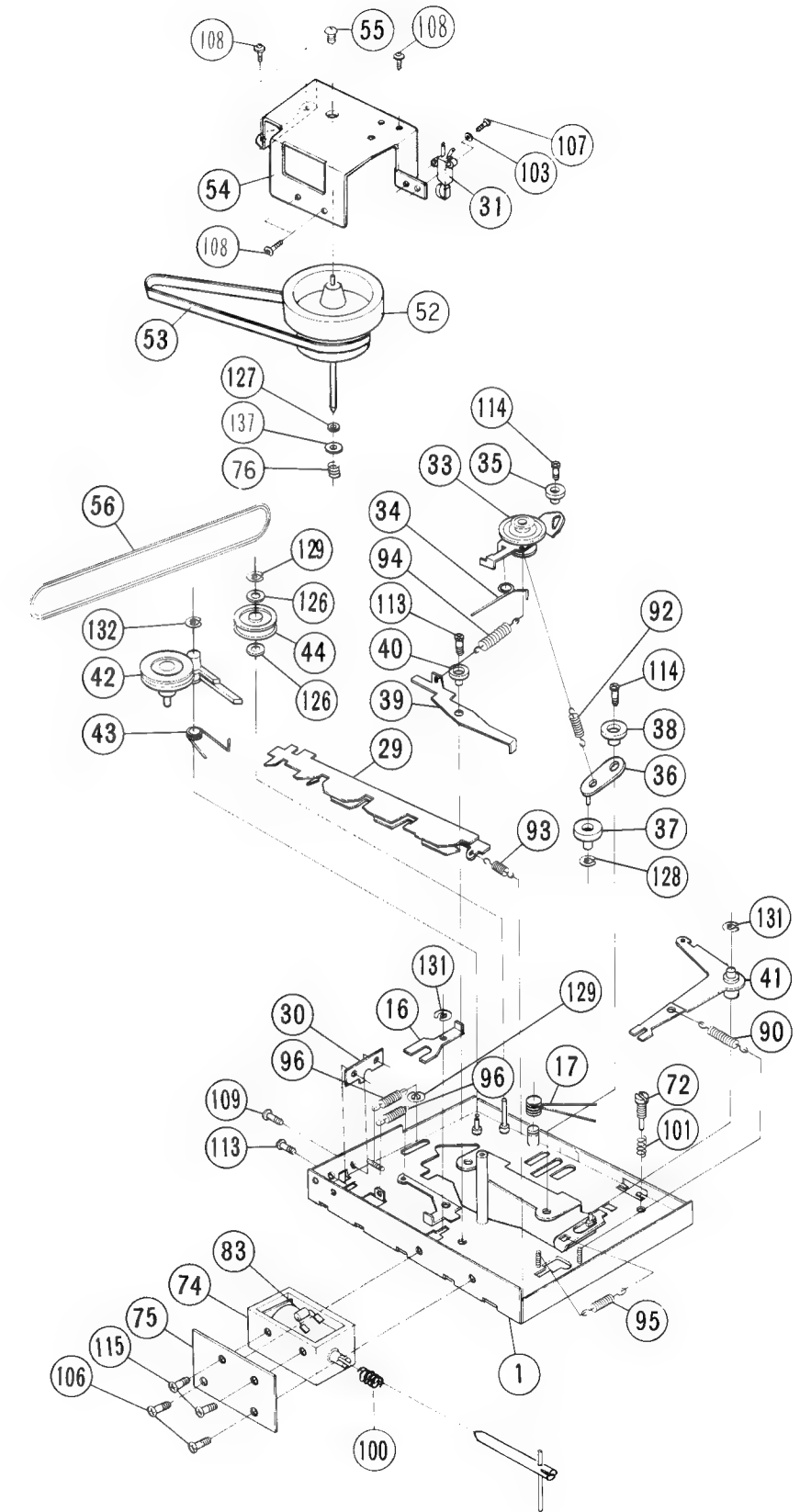
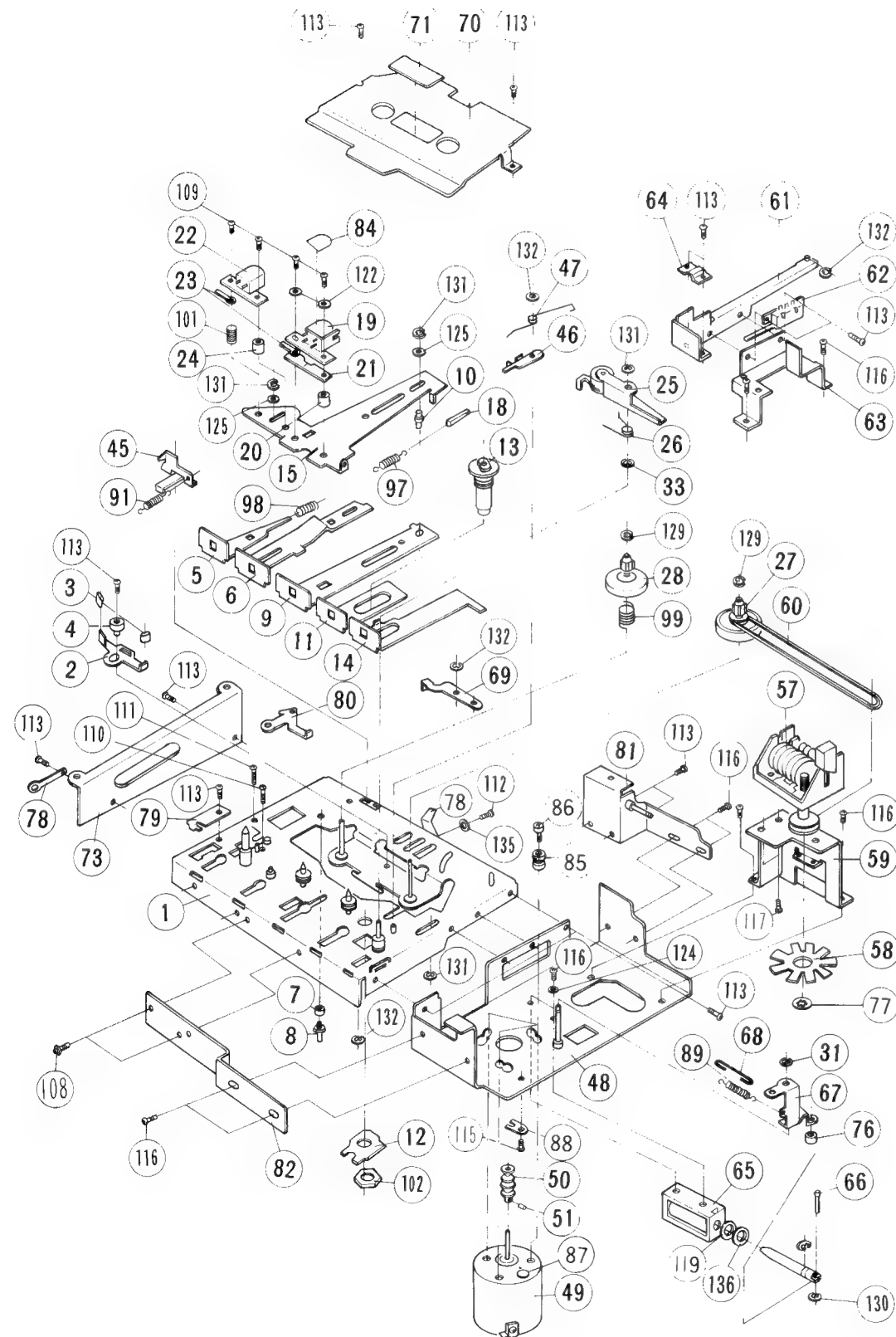
Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
1	*TGB305205-0B	Chassis Base Ass'y		1
2	TFB265488-01	Brake Arm		1
3	TER265487-01	Brake Rubber		2
4	TFH265486-01	Collar	for Brake Arm	1
5	*T47449-00B	Rew. Bar Ass'y		1
6	*T47453-00C	Rec. Bar Ass'y		1
7	T30302-061	Collar	for Rec. Bar	1
8	TFH265516-01	Stud	for Brake Lever	1
9	*TGB265485-0B	Play Bar Ass'y		1
10	TFH265514-01	Pin (Play Bar)	Play Bar & Slide Base	1
11	*T47459-00B	FF Bar Ass'y		1
12	*TFB305417-01	Spacer		1
13	*TGH265546-0C	Capstan Metal Ass'y		1
14	TGB291420-0A	Stop Bar Ass'y		1
15	*TGB265482-0C	Slide Base Ass'y		1
16	TEP014497-01	Spring Plate		1
17	TFW014498-01	Spring	for Play Bar	1
18	TJN265559-01	Silencer	for Spring	1
19	ZMM074401-0A	R.P. Head Ass'y		1
20	T30302-072	R.P. Head Collar		1
21	TFP294513-01	R.P. Head Spring	R.P. Head	1
22	THS000481-0A	E. Head Ass'y		1
23	T45640-001	Wire Holder	Head Wire Clamp	2
24	T30302-067	E. Head Collar		1
25	TGB291415-0B	Pinch Roller Arm Ass'y		1
26	TFW294483-01	Pinch Roller Spring		1
27	TGB294462-0B	Take-up Disc Ass'y		1
28	*TGP294464-0D	Supply Disc Ass'y		1
29	TGB265475-0A	Push Button Cam Ass'y		1
30	TFB265509-02	Stopper	for Push Button Cam	1
31	QSMIS01-015	Micro SW Ass'y		1
32	T47528-002	Switch Lever		1
33	TGX294488-0A	FF Arm Ass'y		1
34	T47507-001	FF Spring		1
35	TFH305466-01	Metal	FF Arm	1
36	T47508-00A	Rew. Arm Ass'y		1
37	T47500-001	Idler Ass'y		1
38	TFH265534-01	Metal	for Rew. Arm	1
*39	*TFB294478-02	Review Lever		1
40	TFH000491-01	Metal	for Review Lever	1
41	TGB265472-0A	Brake Lever Ass'y		1
42	TGP265471-0C	Take-up Lever Ass'y		1
43	T47520-001	Lever Spring		1
44	TGP265571-0A	Idler Pulley Ass'y		1
45	TFB291414-01	Rec. Safety Lever		1
46	TFB265535-01	Select Lever	for Stop/Eject	1
47	*TFW305443-01	Select Lever Spring	"	1
48	*TGB305404-0B	Motor Bracket Ass'y		1
49	MHI5C2HDN	Motor		1
50	TFH349418-01	Motor Pulley		1
51	TRS2603Z	Screw		1
52	TEW349307-0A	Flywheel Ass'y		1
53	TEB349419-01	Capstan Belt		1
54	VKL4103-01	Flywheel Holder		1
55	TEP349420-01	Thrust Screw		1

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
56	TEB265497-01	Take-up Belt		1
57	*TGW305303-0A	Counter Ass'y		1
58	*TFB265495-02	Plate		1
59	TFB349415-01	Counter Bracket		1
60	TEB345476-01	Counter Belt		1
61	*TGB305409-0B	Pause Bar Ass'y		1
62	QSP1210-011	Push SW Ass'y	for Pause	1
63	TFB349417-01	Pause SW Bracket		1
64	*TFB305411-01	Bracket	for Pause Bar	1
65	*TDP281305-02	DC Solenoid		1
66	TFH281422-01	Pin		1
67	TFB349416-01	Pause Arm		1
68	*TFW305413-01	Wire		1
69	*TFB265543-02	Pause Lever		1
70	TFB291411-02	Cassette Holder		1
71	*TJP305451-01	Reflection Plate		1
72	*TFH305442-01	Special Screw		1
73	*TGB305432-0A	Holder Bracket (L) Ass'y	TFB349310-01 or 0AT	1
74	TDP294319-0A	DC Solenoid		1
75	TFB265458-03	Solenoid Bracket		1
79	TFB265456-01	Guide Plate		1
80	*TFB265550-02	Rec. Lock Lever		1
81	*TGB305430-0A	Holder Bracket Ass'y		1
82	*TFB305429-01	Bracket		1
83	T30155-001	Si. Diode		2
84	THC037417-01	Head Plate	SA for REC/PB Head	1
85	TER357465-01	Cushion Rubber		3
86	TFH345468-01	Motor Screw		3
88	TFB345469-01	Rubber Stopper		1
89	T30300-153	Spring		1
90	" -140	"	Brake Lever	1
91	" -121	"	Lock Lever	1
92	" -126	"	Idler	1
93	" -132	"	Button Cam	1
94	" -151	"	Idler	1
95	" -136	"	Rec. Bar	1
96	" -137	"	Stop Bar	1
97	" -139	"	Play Bar — Slide Bar	1
98	T30301-122	"	Rew. Bar	1
99	" -155	"	Flywheel	1
100	" -106	"		1
101	" -115	"	E. Head Special Screw	2
102	T47828-001	Nut	M8 x 0.75	1
103	NNS2000N	"	Micro SW	2
105	NTB3000S	Nut	Solenoid	1
106	SSSP2604Z	Screw	Bracket	2
107	SSSP2012Z	"	Micro SW	2
109	SPSP2008Z	Screw	Rec./PB Head, E. Head, Stopper	5
110	SPSP2010Z	"	Rec. Spring	1
111	SPSP2012Z	"	Spring	1
112	SPSP2604Z	"	Spring Plate	1
113	LPSP2005Z	"	Brake Arm, Cassette Holder, Stopper, Review Lever, Pause Bar, Holder Bracket, Motor Bracket, Rew. Arm, Holder Bracket	18
114	LPSP2006Z	"	FF Arm Holder	5

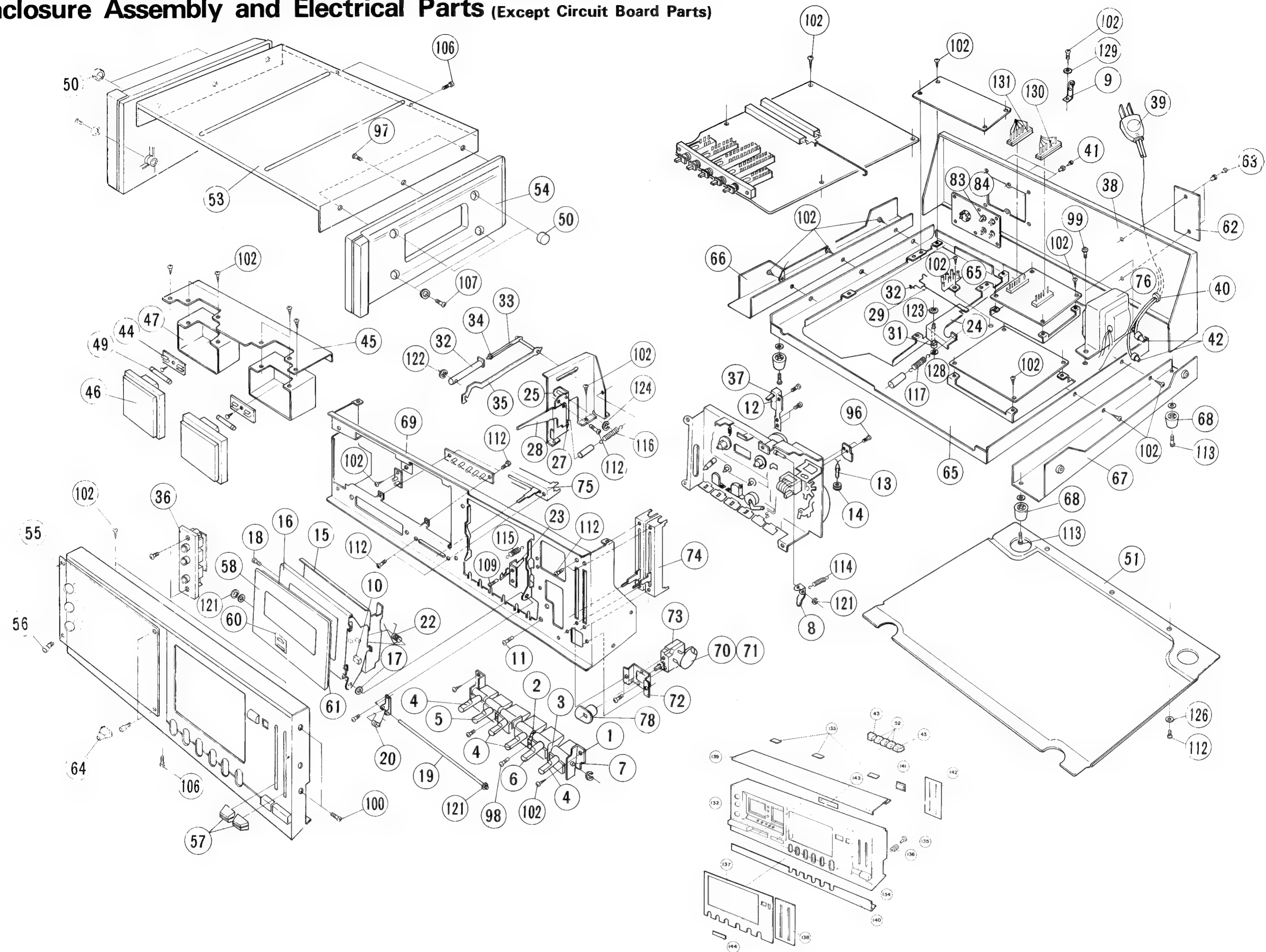


Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
115	LPSP2604Z	Screw	Solenoid, Guide Plate, Counter Bracket, SW Bracket, Rubber Stopper	6
116	LPSP2605Z	"	DC Solenoid, Switch Bracket, Motor Bracket	10
118	LPSP2608Z	Screw	Motor	3
119	LPSP3005ZS	"	Counter	2
120	WLS2000	Washer	Micro Switch	2
121	WLS3000	"	Solenoid	1
122	WNS2000N	"	Rec./PB Head	2
123	Q03091-154	"	Motor	3
124	WNB2600N	"	Solenoid	2
125	Q03093-430	"	Slide Base	2
126	Q03093-610	"	Idler Pulley	2
127	Q03093-827	"	Flywheel	1
128	REE1000	"E"-Ring	Idler	1
129	REE1200	"	Disc Ass'y, Switch Lever, Idler Pulley	4
130	REE1500	"	Pin	1
131	REE2000	"	Playback Bar, Slide Base, Pinch Roller, Brake Laver, Pause Arm	8
132	REE2500	"	Pause Bar — Pause Lever, Stop Bar, Take-up Lever, Stop/Eject	6
133	REE4000	"		1
134	Q03093-522	Washer	Flywheel	1
135	WNS2600N	"	Spring Plate	1
136	TEP305463-01	Spring Plate		1
142	T47829-001	Washer		1
143	Q03093-621	"	for Flywheel	1
144	Q03093-504	"		1
145	Q03093-505	"		1
146	WLS2000	Lock Washer		2
147	SPSP2003Z	Screw		2

## Mechanical Components



# Enclosure Assembly and Electrical Parts (Except Circuit Board Parts)



## Enclosure Ass'y and Electrical Parts List except Circuit Board Parts

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
1	TFB305310-01	Button Frame		1
2	TJM330406-01	Button Holder		2
3	*TFB305428-02	Push Button Spacer		3
4	TJB305311-0A	Push Button Ass'y		4
5	" -0B	"	for REC	1
6	" -0C	"	for Stop/Eject	1
7	TFH291457-01	Push Button Shaft		1
8	TGB291485-0A	Bracket Ass'y		1
9	TAW272462-01	Lug		1
10	TJN265423-05	Panel Cushion		1
11	T42483-004	FT Screw	for Mecha.	4
12	TFB349421-01	Switch Bracket	for Muting SW	1
13	T46821-002	Pilot Lamp		1
14	53492	Rubber Bushing		1
15	TGB291423-0A	Cassette Holder Ass'y		1 set
16	TGB291322-0E	Cassette Door Holder Ass'y		"
17	TFB305461-01	Washer	for Cassette Door	2
18	SSSP3008RS	Screw	for Cassette Holder	1
19	TFH305445-01	Shaft		1
20	TFW305435-01	Spring		1
21	TJN271501-07	Himelon Sheet		6
22	TFW305458-01	Spring		1
23	TJB330415-0A	Lock Arm Ass'y		1 set
24	TFB305414-02	Rec. Arm (1)		1
25	TGB305416-0B	Rec. Bracket Ass'y		1 set
26	T44341-001	Rubber Tire		1
27	TFB305453-01	Rec. Arm (2)		1
28	TFB305454-01	" (3)		1
29	TFW305419-01	Rod		1
30	T47946-001	Rec. Rod		1
31	TFH305462-01	Stud		1
32	TEP267495-0B	Brake Pipe Ass'y		1 set
33	TEP267490-03	Brake Shaft		1
34	TER267508-02	"O" Ring		1
35	TGB305457-0A	Brake Arm Ass'y		1 set
36	TAJ305307-02	Jack Ass'y	for Mic. & Headphone	"
37	T30483-00C	Slide Switch	S106, 206 for Muting	1
38	TFB330103-01	Rear Bracket	KD-S200-2A/B/E	1
	TFB330103-02	"	KD-S200-2C/J/U	1
39	QMP2500-200	Power Cord with Plug	KD-S200-2A	1
	QMP9017-007BS	Power Cord	KD-S200-2B	1
	QMP1200-244	Power Cord with Plug	KD-S200-2C/J	1
	QMP3900-183	"	KD-S200-2E	1
	QMP7600-183	"	KD-S200-2U	1
40	QHS3876-162	Cord Stopper	KD-S200-2A/C/E/J/U	1
	QHS3876-162BS	"	KD-S200-2B	1
41	E48729-001	Plastic Rivet	for Jack Ass'y	6
42	TAW000504-01	Connector	for Power Cord, KD-S200-2C/J/U	2
43	TJK363202-01	Knob "A"	for Push SW	2
44	TMG1121-00B	Lamp Holder		2
45	TFB330307-01	Meter Bracket		1
46	TDM330305-01	Lever Meter		2
47	TFB330404-01	Lamp Cover		2
48	T43595-003	Double Face	for Meter (3 x 55)	4
49	QLP4101-007	Pilot Lamp	PL 1, 2	2

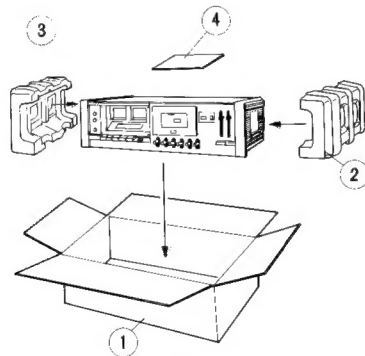
Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
50	E61066-001	Cap	for Side Panel	4
51	TFB330104-01	Bottom Cover		1
52	TJK363203-01	Knob "B"	for Push Switch	3
53	TJC330105-02	Cover		1
54	E10086-001	Side Panel		2
55	TJM330201-02	Meter Cover		1
56	E60919-002	Special Screw	for Meter Cover	4
57	TJK330206-01	Slide Volume Knob	for Rec. Level	2
58	TJP291327-0A	Cassette Power Ass'y		1 set
59	TJP330303-01	Cassette Door Plate		1
60	TJL271485-01	Mark		1
61	TJS305450-01	Double Face		1
62	TJL000342-38	Name Plate	KD-S200-2A	1
	" -39BS	"	KD-S200-2B	1
	" -40	"	KD-S200-2C	1
	" -10	"	KD-S200-2E	1
	" -41	"	KD-S200-2J	1
	" -42	"	KD-S200-2U	1
63	E48729-002	Plastic Rivet		2
64	E60879-001	Slide Knob	for Output Level	1
65	TFC305102-02	Amp. Chassis		1
66	TFC330209-01	Amp. Chassis (L)		1
67	TFC330210-01	" (R)		1
68	TJF330408-01	Foot		4
69	TFB330102-03	Front Bracket		1
70	QFA72BM-223	M.M. Capacitor	S1 for Power, KD-S200-2C/J	1
	QFM43AM-223	"	" KD-S200-2U	1
71	T47047-001	Condenser Cap	KD-S200-2J/U	1
72	TFB330412-01	SW Bracket		1
73	QSP2111-011	Push Switch	S1 for Power, KD-S200-2A/E	1
	QSP2111-011BS	"	" KD-S200-2B	1
	QSP1110-222	"	" KD-S200-2C/J	1
	QSP1110-221	"	" KD-S200-2U	1
74	QVS4C3A-054L	V. Resistor	50 k $\Omega$ (A) VR102, 202	2
75	QVS2C7A-014	"	10 k $\Omega$ (A) VR106, 206	1
76	TAP330306-03	Power Transformer	KD-S200-2A/E	1
	TAP330306-03BS	"	KD-S200-2B	1
	TAP334301-01	"	KD-S200-2C/J	1
	TAP360301-01	"	KD-S200-2U	1
77	51739-2	Lug		2
78	TJS338446-02	SW. Holder	for Power Switch	1
79	QSS2325-006	Slide Switch	for Voltage Select SW KD-S200-2A/E	1
	QSS2325-006BS	"	" KD-S200-2B	1
	QSS2325-004	"	" KD-S200-2U	1
80	TFB305464-01	Spring Bracket		1
81	SPSP2610Z	Screw		1
82	E46651-001	Wrapping Terminal		1
83	TAJ271307-02	Jack Ass'y	PIN & DIN	1
84	TAA305459-01	C. Board	PIN	1
94	DPSP3012ZS	Screw	for Bottom Cover	1
95	LPSP2005Z	"		2
96	SPSP2005Z	"	for CdS Circuit Board	2
97	SBSB3010Z	"	for Side Panel	6
98	SPSP2614Z	"	for Button Holder	2

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
99	DPSP4006Z	Screw	for Power Transformer	2
100	SSSP3006ZS	"	for Front Panel	2
101	SBSB3005Z	Tapping Screw	for Lug	1
102	SBSB3006Z	"	for Front Panel, Button Frame, Rear Bracket, Indicator C. Board, Lamp Cover, Meter Bracket, Lamp Holder Amp. Chassis, Wrapping Terminal, Front Bracket, Main Amp, Power Supply, Super ANRS and Peak Level C. Boards	58
103	SBSB3008Z	"	for Bottom Cover	3
104	SDBP3006RS	Screw	"	2
105	SDBP3008RS	"	for Voltage Select SW. KD-S200-2A/B/E/U	2
106	SDBP3010RS	"	for Front Panel, Rear Bracket, Back Cover	3
107	SDBP4014RS	"	for Side Panel	4
108	LPSP2004Z	"	for Head and CdS C. Board	4
109	LPSP2604Z	"	for Lock Arm Ass'y, Bracket	7
110	LPSP2606Z	"	for Front Lock Arm SP	1
111	LPSP2616ZS	"	for Jack Ass'y	2
112	LPSP3006ZS	"	for Front Panel, Rear Bracket, Push SW, SW Bracket, V. Resistor	15
113	LPSP3022ZS	"	for Foot	4
114	T30300-111	Spring	for Push Button	6
115	" -125	"		1
116	" -134	"		1
117	" -152	"		1
118	" -154	"		1
119	T30301-105	"		6
120	NTB3000	Nut	for Voltage Select SW KD-S200-2A/B/E/U	2
121	REE2000	"E" Ring	for Bracket Ass'y, Brake Pipe Ass'y, Brake Shaft	3
122	REE2500	"	for Shaft	2
123	REE300	"	for REC Arm (1), Brake Arm	2
124	REE4000	"	for Push Button Shaft	3
125	WNB2600N	Washer	for Jack Ass'y	2
126	WNB3000N	"	for Voltage Select SW, Bottom Cover	5
127	WNB4000N	"	for Side Panel	4
128	WLS4000	"	for Stud (Amp. Chassis)	1
129	WSB4000N	"	for Lug	1
130	QMC0557-001	Socket Ass'y		1
131	QMC0657-001	"		1
132-134	ZCKDS2002CBF	Front Panel Sub. Ass'y		1 set
132	TJM330101-02	Front Panel		1
133	TJN265423-05	Cushion	for Front Panel	3
134	TJB330204-02	Power SW. Button "A"		1
135	TJB330205-01	" " "B"		1
136	TJB291306-02	Spring		1
137	*TJP330301-03	Plate "A"	for Cassette	1
138	TJP330302-01	Plate "B"	for REC Volume	1
139	TJE330207-01	Fitting "A"		1
140	TJE330208-03	" " "B"		1
141	TJB330405-01	Counter Lens		1
142	TJN330407-01	Volume Net	for REC LEVEL	2
143	TJN330407-01	"	for OUTPUT LEVEL	1
144	*TJL363402-01	Super ANRS Mark		1

# Accessories

Parts No.	Parts Name	Remarks	Q'ty
CN-201	DIN Cord Ass'y	KD-S200-2B/E	1
T30046-00B	PIN Cord Ass'y	KD-S200-2A/C/J/U	2
T47796-00B	Head Cleaning Stick		2
AP4056A-024	Envelope	for Head Cleaning Stick	1
TLT000429-01	Caution Card	"	1
TLT305452-02	"	for Cassette Loading	1
TLT052401-01	Warning Label	KD-S200-2A/E/U	1
TLT052401-01BS	"	KD-S200-2B	1
QZL1002-003BS	"	for Power Cord, KS-S200-2B	1
TLT279401-01	Caution Card for Frans	KD-S200-2E	1
T46965-002	Demo. Cassette	DT-626	1
TLJ000476-02	ANRS Seal		1
TLJ000477-02	Super ANRS Seal		1
TJL000443-01BS	Seal	for Front Panel, KD-S200-2B	1
TLT000505-01	UL/CSA Caution Label	for Bottom, KD-S200-2C/J	2
BT20025	Warranty Card	KD-S200-2C	1
BT20032	"	KD-S200-2J	1
BT20024B	Special Reply Card	KD-S200-2J	1
T44362-001	CSA Marker	KD-S200-2C	1
T46328-003	Caution Card	AC 240 V, KD-S200-2A/B	1
T46328-004	"	AC 220 V, KD-S200-2E	1
BT20023	Service Procedure	KD-S200-2J	1
T40328-001	Caution Card	KD-S200-2U	1
QZL1001-001	UL Label	KD-S200-2J	1
BT20013	Guarantee Certificate	KD-S200-2B	1
BT20029	Warranty Card	KD-S200-2A	1
BT20015	"	for PX (KANAZAWA), KD-S200-2U	1
E7795-1	EP Mark	KD-S200-2U	1
E04056-001	Conti. Plug	for SANSEI, KD-S200-2U	1
T7737EGF	Instruction Book		1

# Packing



Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
1-2	TKB330410	Packing Case Ass'y		1 set
1	TKB330410	Case		1
2	TKC330106-01	Cushion	Left	1
	TKC330207-01	"	Right	1
	AP4056A-036	Envelope	for PIN or DIN Cord	1
3	QPGA065-06005	"	for Set	1
	AP4056A-077	"	for Instruction Book	1

# JVC

VICTOR COMPANY OF JAPAN, LIMITED.

RADIO & RECORDING MACHINE DIVISION 804 Futoo-cho, Kohoku-ku, Yokohama, Japan



Printed in Japan  
-5206-S-



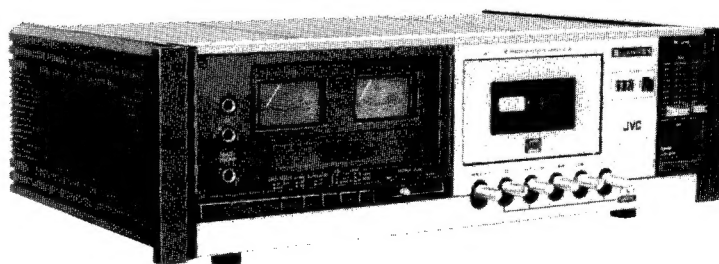
# JVC

## Supplementary **SERVICE MANUAL**

MODEL

**KD-S200-2A/B/C/E/J/U**

STEREO CASSETTE DECK



This manual is supplementary of KD-S200-2A/B/C/E/J/U service manual (No. 4157) to improve performance and other reasons.

Please add this comparative table to service manual (No. 4157) and give an order to us for the parts concerned to keep them as spare.

# KD-S200-2A/B/C/E/J/U (No. 4157)

Page	Line	Original			NEW				
		Ref. No.	Parts No.	Parts Name	Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
		(Main Amp. Circuit Board)							
20	33	R147, 247	QRD141K-473	C. Resistor	R147, 247	QRD141R-683	C. Resistor	68 kΩ ¼ W =501~	2
21	12	C134, 234, 133, 233	QFM41HK-152	Mylar Capacitor	C134, 234 C133, 233	QFM41HK-152 QFM41HJ-102	Mylar Capacitor "	0.0015 μF 50 V =501~ 0.01 μF =501~	2 2
		(Power Supply Circuit Board)							
25	14	R615	QRD142K-332	C. Resistor	R615	QRD142K-333	C. Resistor	33 kΩ ¼ W =501~	1
	15	R617	" -222	"			"	(Cancel)	
	22	R627	QRD143K-331	"	R627	QRD143K-562	"	5.6 kΩ ¼ W =501~	1
	45	D606-614	T30155-001	Si. Diode	D607-614 D617	10E1 MA150	Si. Diode "	=501 (Addition)	8 1
		(Mechanical Component)							
28	23	23	T45640-001	Wire Holder	23	VKZ4001-009	Wire Holder	Head Wire Clamp	2
33	17	17	TFB305461-01	Washer	17	TFB305428-01	Washer	for Cassette Door	2
34	27	70	QFM43AM-223	M.M. Capacitor	70	QFH53AM-223	M.M. Capacitor	S1 for Power, KD-S200-2U	1
	41	78	TJS338446-02	SW. Holder	78	TJS338446-04	SW. Holder	for Power Switch	1
35	1	99	DPSP4006Z	Screw	99	LPSP4006ZS	Screw	for Power Transformer	2
	28	127	WNB4000N	Washer	127	WNB4000N	Washer	for Side Panel, Power Transformer	6
						QEW41EA-105N	E. Capacitor	C628, =501~ (Addition)	1
						Q03093-502	Washer	for Power Switch, =501~ (Addition)	1
						WNS3000N	Washer	for Cover, =501~ (Addition)	2
36			E04056-001	Conti. Plug		V04062-001	Siemens Plug	KD-S200-2U	1
		(Accessories)							

# JVC

VICTOR COMPANY OF JAPAN, LIMITED.  
RADIO & RECORDING MACHINE DIVISION 804 Futoo-cho, Kohoku-ku, Yokohama, Japan